

**KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK
VASCULAR PLANT INVENTORY
FINAL TECHNICAL REPORT**



Matthew L. Carlson,
Michelle Sturdy, Rob Lipkin,
& Julie A. Michaelson

Alaska Natural Heritage Program

Environment and Natural Resources Institute
University of Alaska Anchorage
707 A Street
Anchorage, Alaska 99501

National Park Service Alaska Region
Inventory & Monitoring Program

NPS Report :

2nd Edition, December 2004

Cooperative Agreement No. 1443CA991000013

Funding Source: National Park Service, Inventory & Monitoring Program



The National Park Service

Inventory and Monitoring



ABSTRACT

In 2002 and 2003 the University of Alaska Anchorage, Alaska Natural Heritage Program (AKNHP), conducted vascular plant field inventories in Klondike Gold Rush National Historical Park as part of the Inventory and Monitoring Program of the National Park Service. The primary goal was to document greater than 90% of the vascular plant species expected to occur within the park and significantly improve our understanding of current vascular plant species distributions. The inventory targeted diverse habitat types and poorly sampled areas. The AKNHP visited ten diverse eco-geographic regions and sampled intensively within these regions from mid-June to mid-August, 2002 and early July in 2003. A total of 283 specimens were collected, recorded, pressed, and curated. One hundred seventy four individual taxa are represented, 55 are new records for the park, and an additional ten represent verifications of previously unvouchered reports. The percentage of documented taxa increased from 78% to 86% after the 2002 and 2003 field seasons. A number of finds were range extensions or taxa of conservation concern. Collections were made of the state and globally restricted species: *Phyllodoce empetrifomis* (G4-S1S2 rank) and *Eleocharis kamtschatica* (G4-S2). Two collections were moderate range extensions. Six non-native species that are new to the park were collected, one is a new record for Alaska.

TABLE OF CONTENTS

ABSTRACT.....2

EXECUTIVE SUMMARY.....7

INTRODUCTION.....8

 Ecological and Geological Background.....8

 Management Efforts and Issues.....10

 Overview of Inventory.....10

MATERIALS AND METHODS.....11

 Expected and Known Taxa.....11

 Floristic History of Glacier Bay NPP.....13

 Sampling Design.....14

 Site Descriptions.....14

 Chilkoot Unit.....24

 Dyea/West Creek.....24

 Finnegan's Point.....24

 West Canyon City.....25

 North Canyon City/Pleasant Camp.....26

 Sheep Camp.....26

 Long Hill.....27

 The Scales/Chilkoot Pass.....28

 White Pass Unit.....30

 South White Pass.....30

 West White Pass/Dead Horse Gulch.....31

 East White Pass.....32

 Field Methods.....34

 Vouchers and Curation.....34

 Products.....35

RESULTS.....36

 Chilkoot Unit.....36

 Dyea/West Creek.....36

 Finnegan's Point.....37

 West Canyon City.....38

 North Canyon City.....38

 Sheep Camp.....39

 Long Hill.....40

 The Scales/Chilkoot Pass.....41

 White Pass Unit.....42

 South White Pass.....42

 West White Pass/Dead Horse Gulch.....43

 East White Pass.....44

DISCUSSION.....46

 Range Extensions.....46

Carex loliacea.....46

Minuartia macrocarpa.....47

 Exotic Species.....48

Capsella bursa-pastoris.....48

Chenopodium album.....48

Euphrasia nemorosa.....48

Galeopsis bifida.....48

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Leucanthemum vulgare49
Lupinus polyphyllus.....49
Rheum rhabarbrum49
Stellaria media49
Species of Conservation Concern50
Phyllodoce empetriformis.....50
Eleocharis kamtschatica.....51
Saxifraga occidentalis52
RECOMMENDATIONS52
AKNOWLEDGEMENTS55
LITERATURE CITED.....55

APPENDICES

Appendix I - List of 2001 Confirmed and Expected Taxa in KLGO57
Appendix II - List of Plant Collections in Klondike Gold Rush National Historical Park.....67
Appendix III - Rare Plant Species Collected in Klondike Gold Rush National Historical Park75
Appendix IV - List of Alaska Natural Heritage Program Ranks.....77
Appendix V - User's Guide for GIS Attributes in Klondike Gold Rush National Historical Park.....79

LIST OF FIGURES

Figure 1. Map of KLGO in relation to Alaska and northern Southeast Alaska.....9

Figure 2. Historic photo of early plant collectors of the area.....4

Figure 3. Map of KLGO showing previous and AKNHP collection sites.....12

Figure 4. Map of KLGO showing AKNHP collection regions and sites.....15

Figure 5. Dyea/West Creek airphoto and collection sites.....24

Figure 6. Finnegan's Point habitat photo.....25

Figure 7. Map of Chilkoot Unit collection region and sites.....25

Figure 8. Sheep Camp Fen.....26

Figure 9. Map of the upper Chilkoot Unit collection region and sites.....27

Figure 10. Photo of Long Hill Region habitat.....28

Figure 11. Photo of Long Hill Region subalpine drainage.....28

Figure 12. Photo of Chilkoot Summit alpine habitat.....29

Figure 13. Photo of Chilkoot Summit alpine habitat.....30

Figure 14. Photo of South White Pass montane habitat.....31

Figure 15. Photo of West White Pass alpine habitat.....31

Figure 16. Photo of East White Pass rocky outcrop habitat.....32

Figure 17. Photo of alpine ridge in the East White Pass region.....33

Figure 18. Photo of alpine pond habitat in the East White Pass region.....33

Figure 19. Intertidal sedge meadow at Dyea.....36

Figure 20. Open Sitka spruce forest at site of garden throw-outs.....37

Figure 21. *Euphrasia nemorosa*.....37

Figure 22. *Tellima grandiflora*.....38

Figure 23. *Minuartia macrocarpa*.....38

Figure 24. Pond and fen at Sheep Camp.....39

Figure 25. *Carex loliacea*.....39

Figure 26. Subalpine meadow habitat, Long Hill.....40

Figure 27. *Pedicularis capitata*.....40

Figure 28. Moist alpine community, The Scales/Chilkoot Summit.....41

Figure 29. *Saxifraga cernua*.....41

Figure 30. *Galeopsis tetrahit*.....42

Figure 31. *Oxytropis campestris* var. *jordalii*.....42

Figure 32. *Arnica lessingii*.....43

Figure 33. Wooded fen, *Carex loliacea* site.....43

Figure 34. Rocky alpine site at AK-B.C. Border, *Draba stenoloba* site.....43

Figure 35. *Claytonia sarmentosa*.....44

Figure 36. *Phyllodoce empetriformis*.....45

Figure 37. *Phyllodoce empetriformis* site in East White Pass.....45

Figure 38. *Carex loliacea* illustration and distribution in Alaska and neighboring Canada.....46

Figure 39. *Minuartia macrocarpa* distribution in Alaska and neighboring Canada.....47

Figure 40. Aerial photo of *Euphrasia nemorosa* site, Dyea.....48

Figure 41. *Phyllodoce empetriformis*.....50

Figure 42. Range of *Phyllodoce empetriformis*.....50

Figure 43. *Eleocharis kamtschatica*.....51

Figure 44. Range of *Eleocharis kamtschatica*.....52

Figure 45. Suggested future sampling sites.....53

LIST OF TABLES

Table 1. Vascular plant collection sites: locations and habitats.16

EXECUTIVE SUMMARY

The Inventory and Monitoring Program (I & M) of the National Park Service supported vascular plant inventories to document the occurrence, distribution, and relative abundance of plants occurring in the Southeast Alaska Network. The inventory was developed to provide baseline information for future monitoring and management of natural resources within the Park Network. In 2002 and 2003 the University of Alaska Anchorage (UAA), Alaska Natural Heritage Program (AKNHP) conducted field inventories in the Sitka National Historical Park (SITK), Klondike Gold Rush National Historical Park (KLG), and Glacier Bay National Park and Preserve (GLBA) under Cooperative Agreement No. 1443CA991000013, Modifications 18 and 22. The primary goal is to document 90% or more of the vascular plant species expected to occur within the parks and significantly improve our understanding of current species distributions. The inventories targeted diverse habitat types and poorly sampled areas. This report covers inventories in Klondike Gold Rush National Historical Park. Discussions of inventories in the other Southeast Alaska units are covered in separate reports.

Following an analysis of previous floristic surveys, we noted that most collections were concentrated along the road corridor and trail network in the Chilkoot Unit. Plant communities poorly sampled included peatlands, forested and tall shrub habitats away from the road and trail networks, and alpine habitats. These habitats occur in the White Pass Unit and non-trailside portions of the Chilkoot Unit. This information was taken into account when identifying sites to inventory. Ten floristic locations were outlined for study prior to the 2002 field season. The sites included: Dyea/West Creek, Finnegan's Point, West Canyon City, North Canyon City/Pleasant Camp, Sheep Camp, Long Hill, The Scales/Summit, South White Pass, West White Pass, and East White Pass. In 2002 we visited these regions, with the primary emphasis on the Chilkoot Units. Due to inclement weather, sampling in the White Pass Unit was relatively weak in 2002. Supplemental floristic work in 2003 was therefore directed at filling in gaps in this area and other locations that had a high probability of plant taxa new to the park.

While at the remote collection regions, inventory techniques involved hiking to as many habitat types and geographic areas as possible, recording dominant plant associations, and collecting specimens that were known to be new records or considered significant. Upon collection of specimens, data were gathered on collection site characteristics including, latitude and longitude associated species, and soil characteristics. Plants were then pressed and dried and catalogued with the Alaska Natural Heritage Program. Last, final taxonomic determinations and herbarium mounting was conducted by the University of Alaska Fairbanks Museum.

A total of 283 specimens were collected, recorded, pressed, and curated. Duplicate or triplicate herbarium sheets were made for many of the specimens. Roughly 175 individual taxa are represented and 55 are new records for the park (an additional 10 are taxa that were previously reported but unvouchered). This represents an increase in the percentage of documented taxa from 78% to 86%. A number of finds were range extensions or taxa of conservation concern. Collections were made of the state and globally restricted species: *Phyllodoce empetrifomis* (G4-S1S2 rank) and *Eleocharis kamtschatica* (G4-S2). Two collections were moderate range extensions. *Carex loliacea* is a few-flowered sedge of interior Alaska and Canada which was located along the west side of the Taiya River, near Sheep Camp and along Bridal Veil Falls, about 200 km to the south of its known distribution. The longpod stitchwort, *Minuartia macrocarpa*, was found near Pleasant Camp, 200 km south of known collections in Yukon and Alaska. Six non-native species new to the park were collected, one of which (*Euphrasia nemorosa*) is a new record for Alaska.

Key Words

Klondike Gold Rush National Historical Park, inventory, vascular plants, rare plants

INTRODUCTION

An Inventory and Monitoring (I & M) Program for the National Park Service (NPS) was established by the US Congress in 1992. The goal of NPS and the I & M program is to establish baseline information and long-term trends of natural resources in the parks. Currently, biological inventories are being conducted to establish data to be used in future monitoring programs, make management decisions, conduct research, and educate the public. To meet these objectives, NPS established three program goals:

- Document at least 90 percent of the species of vertebrates and vascular plants expected to occur in the park;
- Describe the distribution and abundance of species of special concern (e.g., rare species or exotics); and
- Provide information necessary to establish a monitoring strategy, with special reference to special threats and resource issues within each park.

The Alaska Natural Heritage Program (AKNHP) was contracted to conduct the vascular plant inventory component of the I & M program of the Southeast Alaska Network. In 2002, one AKNHP botanist and a small NPS crew inventoried the vascular flora of Klondike Gold Rush National Historical Park, and one to three AKNHP botanists, accompanied by NPS ecologists, inventoried the floras of Sitka National Historical Park and Glacier Bay National Park and Preserve. In 2003, one to two AKNHP botanists visited discrete regions of Glacier Bay and Klondike Gold Rush to complete vascular plant inventories. This report summarizes the vascular plant inventory of Klondike Gold Rush National Historical Park, including regions surveyed, methods, flora collected, and important finds.

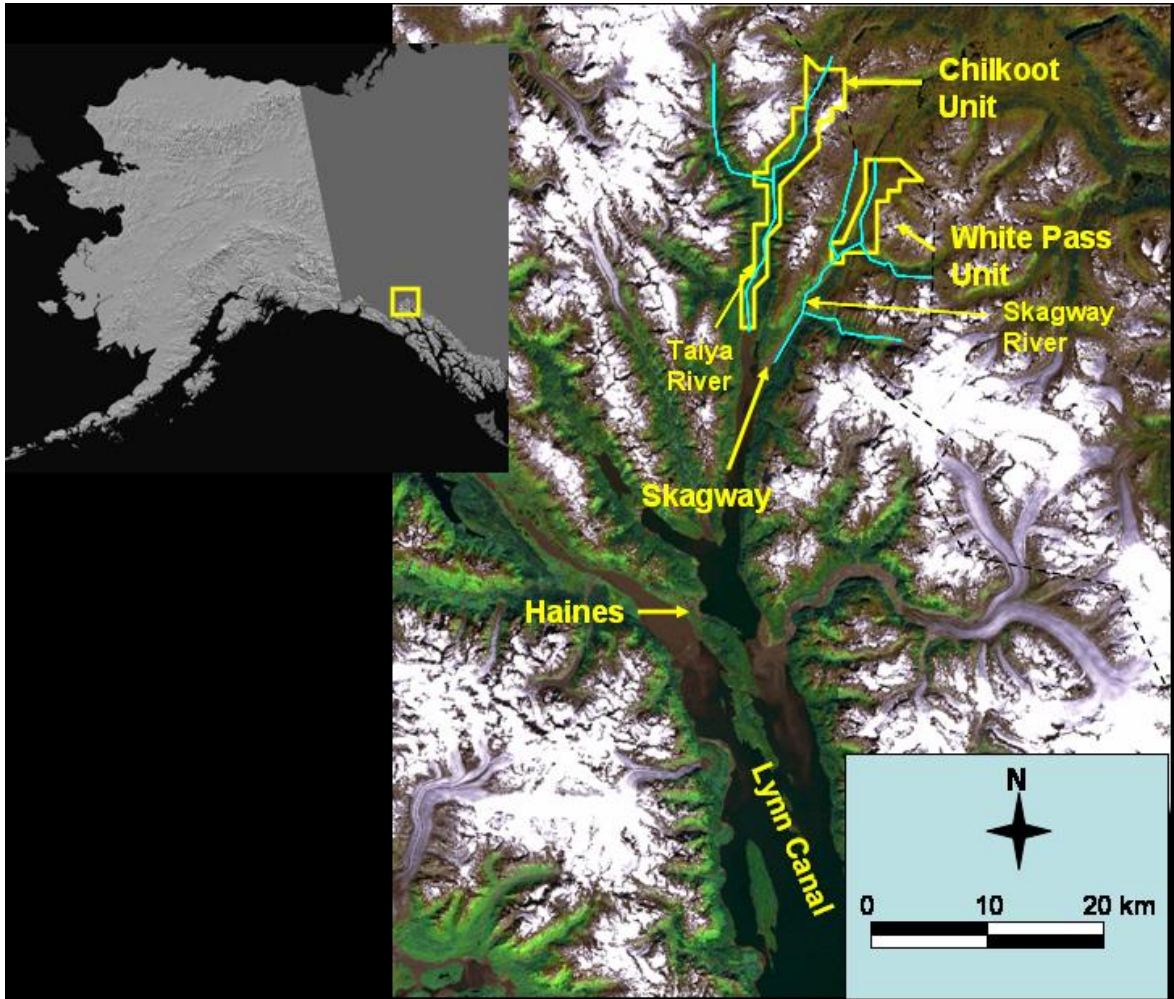
Ecological and Geological Background

Klondike Gold Rush National Historical Park (KLGO) was established in 1976 to preserve the historic structures and artifacts left behind from the 1898 Klondike Gold Rush. The 13,000 acre park lies at the northeastern end of Lynn Canal, a saltwater fjord that extends deep into the coastal mountain range of southeastern Alaska. The park has two units, which follow parallel passes used by the stampeders to reach the Klondike gold fields (Fig. 1). The Chilkoot Trail Unit, about 9,700 acres, includes the entire Taiya River corridor from sea-level to the Chilkoot Pass, including the marine coastal interface at its mouth. The White Pass Unit, about 3,300 acres, follows the White Pass Creek drainage of the Skagway River and encompasses montane and alpine areas near White Pass Summit. The Taiya and Skagway River valleys provide short pathways to glacier-free mountain passes connecting to the continental interior. Thus, the KLGO area is the northern-most, interior-most conduit for ecological exchange between the coastal rainforest ecosystem and the interior continental ecosystem. It has long been an important avenue for plant, animal, and cultural exchange, and continues to be the site of species interchanges today.

The KLGO valleys also exhibit environmental conditions that are unique to southeastern Alaska. There are other passes to the interior south of KLGO, but they all open onto coastal river valleys with wet-temperate rainforest climates, typified by average annual precipitation of up to 160 inches. Skagway receives an average of only 26 inches of rain per year. The low rainfall in the KLGO vicinity produces a special environment for plants and animals. It can get dry enough in

the Taiya and Skagway valleys for forest fires to occur, something unheard of throughout the rest of southeastern Alaska. Additionally, cold-dry adapted species such as *Shepherdia canadensis* and *Oxytropis campestris* var. *varians* can be found in the lower Skagway River Valley (these species are nearly absent from the rest of southeast Alaska). Plants and animals that expand from the interior into the KLGO valleys find conditions that are still classified as temperate rainforest, but are much cooler and drier than most of the southeastern coastal rainforest.

Figure 1. Klondike Gold Rush National Historical Park, showing Chilkoot and White Pass Units. The inset map shows the location of Klondike Gold Rush National Historical Park in Alaska.



The combination of being positioned geographically at a focal point for ecological exchange between the interior and coast, and having environmental conditions unique to the southeastern Alaska rainforest ecosystem, has led many ecologists to postulate that the KLGO area is a biodiversity “hotspot.” Additionally, this area represents a zone of overlap between Beringian species migration from previously unglaciated interior Alaska to the southeast and North American species migrating to the northwest, following the retreat of the Laurentide Ice Sheet. A number of animals more common to the interior, such as caribou, pika, and arctic ground squirrel, are known to occur in the KLGO units, and Pojar and Mackinnon (1994) have suggested that the head of Lynn Canal is the “greatest center for plant diversity in Alaska.”

Management Efforts and Issues

Resource managers of SEAN park units have had little opportunity to obtain baseline information due to the ruggedness and remoteness of the units. In addition, earlier scientific research has been stymied by the unavailability of land cover and habitat maps. Clear data gaps exist for vascular plants as well as other taxa. Thus, the I & M Program represents the first step to gather resource information on plant and animal species. These data will assist land managers in developing and improving their management activities and programs.

In addition to documenting greater than 90% of expected vascular plants, the I & M Program attempts to obtain greater baseline information on the presence, absence, and distribution of species of special concern. For plants, the species of concern are threatened, endangered, rare, and exotic species.

To determine the status of previously collected vascular plant inventory data in SEAN units, the AKNHP was contracted to compile and verify historical and predicted species occurrences for each park. This project involved synthesizing information from a broad range of sources. A list of species verified to be in the units and a list of species, not verified, but expected to occur was compiled (Appendix I).

Overview of Inventory

In an attempt to document 90% or more of the vascular plant diversity in KLGO, the AKNHP first developed a list of taxa expected to occur in the units (Alaska Natural Heritage Program 2000, Hanson 2000, Sharman et al. 2000). Determinations for expected taxa were based on known distributions and collections, and expert opinion of botanists. Second, field sites were chosen prior to arrival that would cover the greatest habitat diversity, and therefore encompass the greatest possible number of species. Third, AKNHP botanists visited the field sites. They collected, identified, and pressed over 280 plant specimens. Identifications were verified and curated at the University of Alaska Museum (ALA) and the collection data was entered into ALA and AKNHP databases.

Previous plant collections were reasonably extensive relative to many National Parks in Alaska, with 585 plant taxa documented (verified and unverified collections, and from publications) prior to the 2002 field season. Batten and Juday (1988) published a report of collections on the east side of Lynn Canal from Berners River north to the Skagway River. Paustian et al. (1994) conducted an ecological inventory of KLGO and adjacent National Forest Service lands. It included a table with a list of plant recorded during the 1960's by botanist Stanley Welsh. Plots were sampled in the following habitats: rounded alpine, avalanche slopes, forest, lower elevation, deeply incised mountain slopes, subalpine fir communities, shallowly incised mountain slopes, smooth mountain slopes, forested higher elevation, broken slopes, forested lower elevation, floodplains, uplifted estuary, and others. Malm (1996-1997) developed a preliminary plant list for KLGO that included plants identified in the park and plants likely to occur in the park according to Hultén (1941-1950). In 1995 a field season report was produced by C. Rector. The KLGO herbarium also contains 359 vascular plant species. Voucher locations are not in an electronic format. Additional information includes ranger notes and staff and visitor observation cards containing natural history observations. These are not well organized or searchable.

The compiled list of taxa expected and confirmed included a large number of synonyms. For example, *Carex sitchensis* was entered as "present," while the currently accepted name for the taxon, *Carex aquatilis* var. *dives*, was included under the "probably present" list (therefore the

same taxon is entered twice). We removed all the synonyms, which reduced the original list of 870 expected taxa to 747. This procedure also reduced the number of verified taxa. There was a concomitant decrease in the percentage of confirmed park taxa from 84% to 78% prior to the 2002 field season. Details on the reanalysis of the taxa list are included in the Methods section below.

Intensive collection by the AKNHP occurred throughout the park and was concentrated in ten regional sections. Over 280 specimens, representing 55 new records for the park, were collected by AKNHP botanists. An additional ten records represent confirmations of taxa that were "unconfirmed" from the park - for example, cited in literature but without voucher collections. These new collections raised the percentage of confirmed taxa, relative to expected vascular plant taxa from 84% to 86%. Two taxa of special conservation concern were collected, plus six new exotic weeds. Two range extensions were also noted.

Two species of conservation concern are uncommon globally and rare within Alaska (AKNHP Rare Plant Tracking List, see http://www.uaa.alaska.edu/enri/aknhp_web/biodiversity/botanical/vascular_species_concern/species_table/images/AKNHP_Plt_Trking_List_2003%20.pdf). One of the rare species collected was, *Phyllodoce empetrififormis*, which was found in a small population in the eastern-most alpine portion of the White Pass Unit. This species was previously documented, but not vouchered. *Eleocharis kamtschatica* is a small spike rush that may be more common in Alaska, but is often overlooked. This species was found in an intertidal sedge-forb meadow at Dyea. Two collections were moderate range extensions: *Carex loliacea* and *Minuartia macrocarpa*. Both of these species are known from collections roughly 200 km to the north in Yukon Territory. A number of non-native species new to the Park were collected, one of which, *Euphrasia nemorosa*, is a new record for Alaska. These species are a potential hazard to the biodiversity and ecology of the Park.

Methodological details, site descriptions, discussion of the relevance of 2002 and 2003 collections trips and recommendations for future research are outlined below.

METHODS AND MATERIALS

The AKNHP's vascular plant inventory in Klondike Gold Rush National Historical Park occurred from mid-June to mid-August, 2002 and in early July, 2003. Determination of expected taxa, site selection, and sampling design preceded field work and was initiated in January of 2002.

Expected and Known Taxa

To gauge progress toward achieving 90% documentation of the expected flora, an informed list of known and probable taxa was first required. Plant collections from the Herbarium of the University of Alaska Museum (ALA) and from the herbaria of the various park units (ANCS+) were databased along with selected collections from other herbaria, observations, and floristic lists from published and unpublished literature. Collections from ALA were verified for both taxonomic identification and geographic location. Collections from ANCS+ were largely unverified for both taxon and geographic location. The records were used by AKNHP to develop lists of taxa known from or expected to occur in the park units. Taxa that were only known from unverified collections or from observations or literature citations were recorded as "Unconfirmed."

Determining the expected species in areas that are poorly known is replete with difficulties. Our method included documented taxa occurring within 50 km of the park units. This is a very rough approximation at best. Even after revisions were made (based on likely habitats and geography) the list undoubtedly omits taxa in the units and includes taxa that are not present. Taxa known from within 50 km of the park boundary, or that were otherwise felt likely to occur in the park, were recorded as "Probably Present."

Using these definitions, we initially determined that the percentage of the total expected flora known to be present in the park was 82% for KLG0 (Appendix I).

We reanalyzed the list to remove the large number of synonyms that artificially inflate the diversity in the park. For hundreds of years botanists have tried to create natural classifications that are stable. However, ideas about taxonomic relationships are continually being reevaluated and often the same biological entity is described by different authorities and given different names. Thus, the biological names are in a constant state of flux. This nomenclatural confusion has been identified as a research priority that is fundamental to ecosystem management and biodiversity conservation. This primary need, identified by the White House on Biodiversity and Ecosystem Dynamics Subcommittee, requires improvements in the organization of, and access to, standardized nomenclature. ITIS (originally referred to as the Interagency Taxonomic Information System: <http://www.itis.usda.gov/>) was designed to fulfill these requirements.

We used the standardized nomenclature of ITIS to eliminate all taxa that occur more than once. For example, there is one currently accepted name for Sitka alder, *Alnus viridis* ssp. *sinuata*, however the unaccepted synonyms, *A. crispa* ssp. *sinuata* and *A. sinuata* were also present on the list, as well as *A. crispa*. (*Alnus crispa* is a synonym for *A. viridis* ssp. *crispa*, a taxon restricted to eastern North America.) Synonyms were eliminated from the "probably present" list if found on the "unconfirmed" list. If synonyms were found on the "present" list, then synonyms were removed from both the "probably present" and "unconfirmed" lists.

After removal of synonyms, the number of taxa expected to occur in Klondike Gold Rush National Historical Park dropped from 870 to 747. Of the 747 taxa, 339 were listed as "present," 246 were listed as "unconfirmed," and 162 were listed as "probably present." This indicates that 78% of the expected flora was known prior to AKNHP fieldwork.

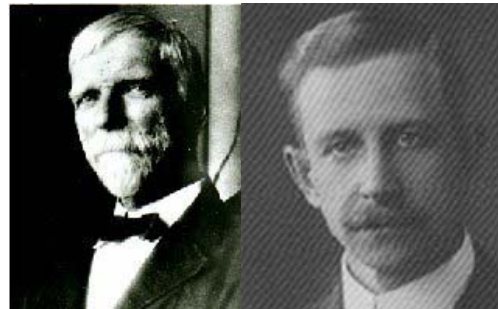
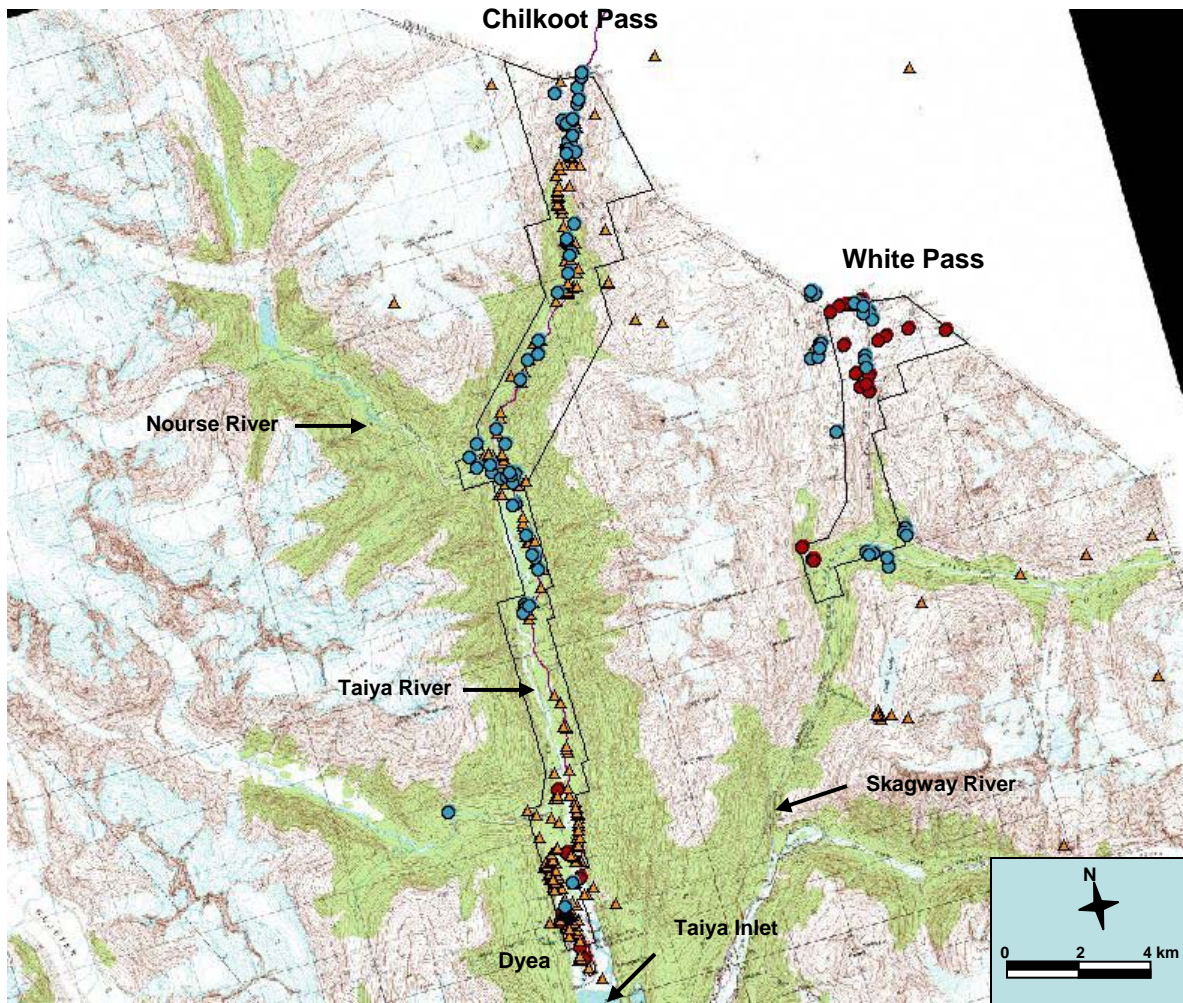


Figure 2. Early botanical collectors of the upper Lynn Canal Region. Left. Naturalist, Robert Statham Williams, (ca. 1910). Photo from <http://www.nybg.org/bsci/libr/Williams.htm>. Right. Naturalist, Wilfred H. Osgood, of the Harriman Expedition (ca. 1900). Photo from <http://www.pwrc.usgs.gov/resshow/perry/bios/OsgoodWilfred.htm>

Floristic History of Klondike Gold Rush National Historical Park

Over 330 vascular plant taxa were reliably documented by collections from KLGO. Additional taxa are known from unverified collections and observations in literature and field notes. The earliest botanical collections were made in 1898 and 1899 by botanist, Robert S. Williams and Wilfred H. Osgood, a naturalist from the Harriman expedition (see Figure 2). In the early 1920's, more extensive collections were made by Swedish botanist Sven Johan Enander. Collections were sporadic until the late 1980's and 1990's when A. R. Batten, G. P. Juday, C. Rector, and D. Atwood made the majority of collections in the park and adjacent lands. Collections cover much of the park, especially along road and trail corridors. A few areas of the park have had little botanical collecting. Figure 3 shows the collections within the park and surrounding areas.

Figure 3. Klondike Gold Rush National Historical Park, showing locations where plants have been collected. Collections by AKNHP botanists in 2002 and 2003 are shown as blue and red circles, respectively; approximate locations of previous collections are shown as triangles.



Sampling Design

In order to attain the goal of documenting 90% of the expected flora, we adopted a reconnaissance method of floristic survey. This method was recommended as the best approach for plant inventories in all Alaska parks by the wide group of botanists at the Alaska Plant Inventory Working Group September 2000 meeting. The reconnaissance method involves identifying survey areas within landscape units via spatial analysis using the following key criteria:

- regionally unique geological or geomorphologic features
- communities or habitats of biological concern
- likely habitats of expected species, as indicated by regional floras and park collections
- under-represented plant communities in existing inventories
- logistical feasibility (e.g., access means, cost)
- potential of certain types of sites to maximize species and communities encountered (e.g., ecotones, high gradient areas)

To maximize species diversity we targeted sampling in ecologically different areas and distributed sampling throughout both units. Targeted sampling has been incorporated into the study design to ensure that sampling occurs in unique sites or habitats where species that are expected, but not yet documented, may exist. Logistical feasibility (e.g., access means, cost) and the potential of certain types of sites to maximize species and plant associations encountered (e.g., ecotones, high gradient areas) were incorporated into the study design. The final site selection process for this study required detailed examination of aerial photographs, geology, and landcover maps.

This targeted, judgement-based approach is essential to locate species of special concern and attempt to locate additional populations based on known habitat preferences and patterns of distribution. As surveys progress the lists of species of special concern will be refined as will our knowledge of their habitat and geography.

Site Descriptions

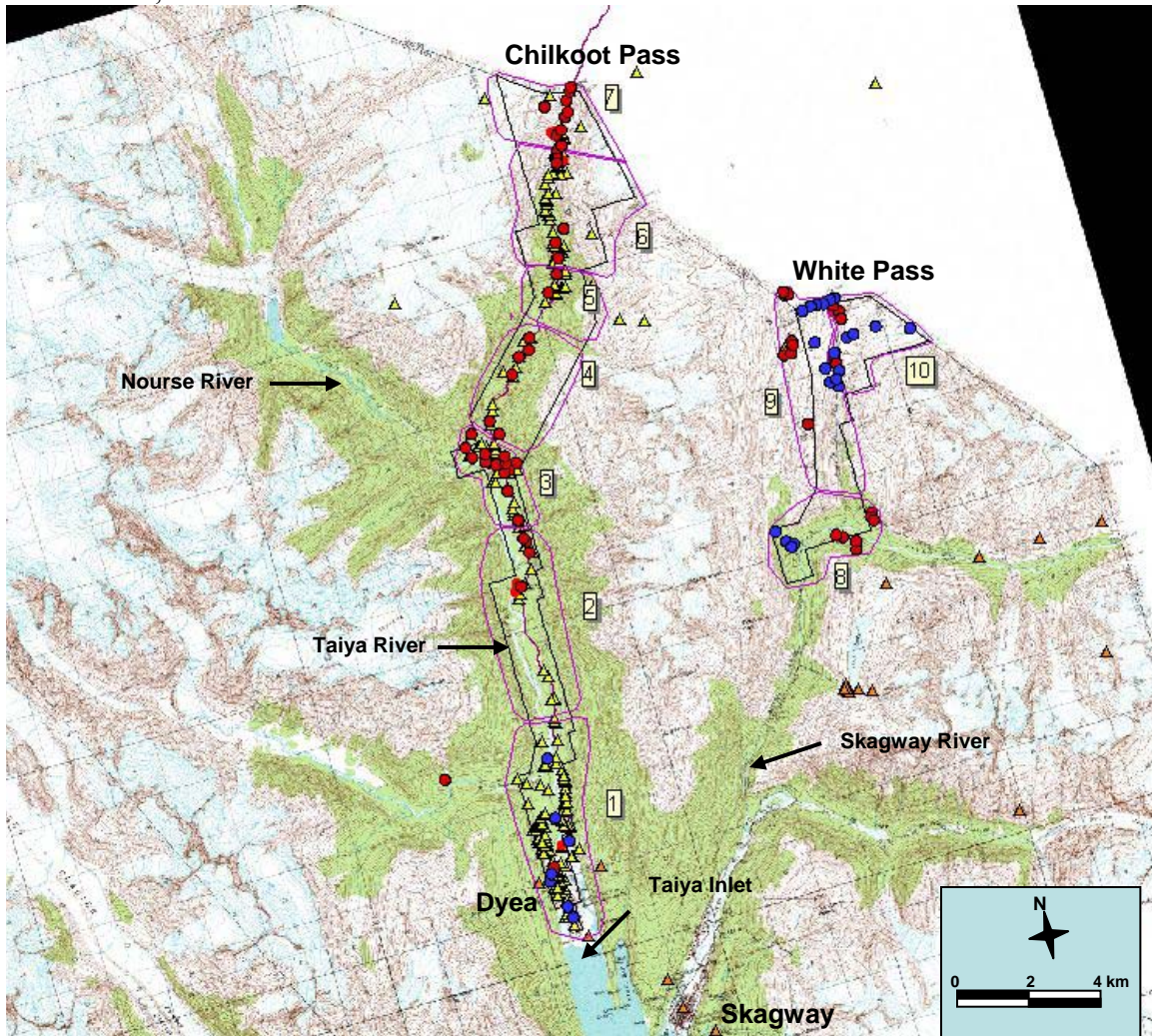
Inventories in 2002 and 2003 were conducted in a similar manner, with the first year of work being more extensive, especially in the Chilkoot Unit. In 2003, sampling was concentrated in the White Pass Unit and Dyea. We visited ten eco-geographic regions and sampled a number of different habitat-types within the regions. The total number of collection sites within regions was 20-30. It is impractical to discuss each of the nearly 100 collection sites, and we therefore discuss collections associated with each of the ten collection regions. Additionally, a number of collections were made outside of the park boundary due to limitations of access or misinterpretations of boundary locations (we discuss those taxa which might be found in the park as new records).

Preferred species names are given based on the Integrated Taxonomic Information System (ITIS). Names based on Hultén (1968) are given parenthetically when divergent from ITIS.

Based on the sampling design criteria, we concentrated our inventory in ten diverse eco-geographic regions of the park, incorporating very divergent habitat types (Fig. 4, Table 1.). Multiple collection sites were located within each region. The regions included the following: Dyea/West Creek, Finnegan's Point, West Canyon City, North Canyon City/Pleasant Camp,

Sheep Camp, Long Hill, The Scales/Chilkoot Summit, South White Pass, West White Pass/Dead Horse Gulch, and East White Pass. Access to all regions was by foot or train in South White Pass (2002).

Figure 4. Map of Klondike Gold Rush National Historical Park, showing regions (numbered polygons) and specific AKNHP collection sites (circles; red = 2002, blue = 2003). Previous collections are shown as triangles (locations for many sites are approximate). 1 = Dyea/West Creek, 2 = Finnegan's Point, 3 = West Canyon City, 4 = North Canyon City, 5 = Sheep Camp, 6 = Long Hill, 7 = The Scales/Chilkoot Summit, 8 = South White Pass, 9 = West White Pass/Dead Horse Gulch, 10 = East White Pass.



KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Table 1. Collection site descriptions listed by ecogeographic region.

Region	Site	Lat(dd)	Long(dd)	Elev. (m)	Habitat	# of Collect ions	Specific locality	Topography	Substrate	Associated Plants	Day	Month	Year
Dyea	2	59.508	135.347	0	disturbed successional silt with bare gravel patches	1	W. branch of Taiya R. flood plain, just before bridge crossing, near the start of Nelson Cr.		sandy mineral-organic mix	<i>Iris setosa</i> , <i>Moehringia lateriflora</i> , <i>Trientalis europaea</i> , <i>Picea sitchensis</i> , grasses	30	Jun	2002
Dyea	3	59.533	135.396	163	shaded spruce-birch mixed stand with open meadow patches	1	near park boundary, 30 m up small trail located in turn around off of dirt road that parallels West Cr.	hill	organic soil	<i>Picea sitchensis</i> , <i>Betula papyrifera</i> , <i>Calamagrostis canadensis</i> , <i>Heracleum lanatum</i> , <i>Gymnocarpium</i>	3	Jul	2002
Dyea	4	59.508	135.347	62	drainage ditch	1	near bank of Taiya R. at campground	ditch	organic soil with sand mixed in		4	Jul	2002
Dyea	69	59.503	135.354	8	open successional wetland with disturbance from horse crossing, surrounded Taiya R. floodplain, base of dirt road	1	slough N of the tidal flats	slough		<i>Picea sitchensis</i> , <i>Populus trichocarpa</i> , <i>Alnus</i> spp., <i>Iris setosa</i> , many grasses, <i>Angelica lucida</i> , <i>Trifolium repens</i> ,	14	Aug	2002
Dyea	71	59.508	135.347	0		1	near Taiya R. bank at campground	floodplain			17	Aug	2002
Dyea	243	59.489	135.355	-4	intertidal beach	5	Old Dyea wharf	intertidal beach	silty and cobbly soils, 90% bare ground	<i>Puccinellia nutkatensis</i> , <i>Plantago maritima</i> , <i>Argentina egedii</i> , <i>Honckenya pepioides</i>	10	July	2003
Dyea	244	59.492	135.356	12	intertidal sedge-forb meadow	3	Dyea halophytic meadow	intertidal beach meadow	muddy	<i>Carex lyngbyei</i> , <i>Poa eminens</i> , <i>Argentina egedii</i> , <i>Dodecatheon pulchellum</i>	10	July	2003
Dyea	245	59.500	135.361	13	pond edge surrounded by thick <i>Carex lyngbyei</i> - forb meadow	2	Dyea halophytic meadow	1 m deep pond, surrounded by thick <i>Carex lyngbyei</i> - forb	moist humus	<i>Carex lyngbyei</i> , <i>Poa</i> sp., <i>Iris setosa</i> , <i>Leymus mollis</i>	10	July	2003
Dyea	246	59.502	135.359	19	open sitka spruce-alder forest along Dyea Road	4	Dyea road, ca. 0.5 mi from end	alluvial plateau	moist humus	<i>Iris setosa</i> , <i>Picea sitchensis</i> , <i>Alnus vitidis</i>	10	July	2003
Dyea	247	59.515	135.349	54	roadside in sitka spruce-red alder forest	3	Dyea road, ca. 1.5 mi from end	alluvial plateau	moist humus	<i>Rosa acicularis</i> , <i>Prenanthes alata</i> , <i>Alnus vitidis</i> , <i>A. oregona</i> , <i>Ranunculus occidentalis</i> , <i>Trifolium repens</i> , <i>Equisetum</i>	10	July	2003
Dyea	251	59.567	135.194	15	small fen in closed alder-spruce forest	3	Lower Taiya River near bridge	river valley	saturated muddy soil	<i>Equisetum arvense</i> , <i>Circea alpina</i> , <i>Athyrium filix-fermina</i> , <i>Alnus oregona</i> , <i>Picea sitchensis</i>	11	July	2003
Dyea	252	59.509	135.346	15	Degraded wetland next to roadside	5	Lower Taiya River near bridge	river valley	gravelly and muddy	<i>Carex sitchensis</i> , <i>Calamagrostis canadensis</i> , <i>Epiobium</i> sp., <i>Rhinanthus minor</i>	11	July	2003
Dyea	253	59.531	135.345	7	Alder-cottonwood forest next to Taiya River	2	Lower Taiya River near West Creek	river valley	moist humus	<i>Alnus vitidis</i> , <i>Cornus stolonifera</i> , <i>Epiobium angustifolium</i> , <i>Poa</i> sp.	11	July	2003

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Table 1 (cont.). Collection site descriptions.

Region	Site	Lat(ddd)	Long(ddd)	Elev. (m)	Habitat	# of Collections	Specific locality	Topography	Substrate	Associated Plants	Day	Month	Year
Finnegans	10	59.577	135.333	30-90	riverbed	8	near Finnegans, banks of the Taiya R.	riverbed	sand with cobbles		8	Jul	2002
Finnegans	11	59.576	135.330	32	riverbank	1	approx. 20 m N of Finnegans on the bank of Taiya R.	riverbank	sand		8	Jul	2002
Finnegans	12	59.584	135.321	90	cleared trail side in large growing hemlock-spruce forest, area disturbed by natural stream bank	1	approx. 0.5 mi N of Finnegans		organic soil		8	Jul	2002
Finnegans	13	59.587	135.321	61	on mossy log bordering stream bank	5	approx. 1-1.5 mi N of Finnegans	stream bank	moss covered thin layer of organic soil	<i>Aconitum</i> sp., <i>Arnica lessingii</i> , <i>Senecio triangulatus</i> , <i>Platanthera hyperborea</i> , <i>Equisetum</i> spp., ferns, <i>Angelica sitchensis</i> , <i>Gymnocarpium dryopteris</i> , <i>Pyrola asarifolia</i> , <i>Orthilia secunda</i> , <i>Oplopanax</i>	8	Jul	2002
Finnegans	14	59.588	135.322	69	closed hemlock stand with spruce and some broadleaf species	1	approx. 1.5 mi N of Finnegans		organic soil		8	Jul	2002
Long Hill	34	59.687	135.247	800	flat area dominated by ericaceous alpine tundra	12	SW of Scales, Spike Camp site	flat shelf near base of mountain			28	Jul	2002
Long Hill	35	59.688	135.244	776	alpine tundra interspersed with alpine meadow patches	1	SW of Scales, Spike Camp site	mountain	thin layer of mineral-organic mix	<i>Carex</i> spp., <i>Sargauscoba</i> spp., <i>Salix arctica</i> , <i>Salix sitchensis</i>	28	Jul	2002
Long Hill	42	59.681	135.251	647	ericaceous tundra at treeline	1	approx. 0.2 mi. S of the Tension Station, W of Taiya R.	alpine slope	thin loamy layer	<i>Tsuga mertensiana</i> , <i>Abies lasiocarpa</i>	31	Jul	2002
Long Hill	43	59.681	135.251	647	seepage at treeline	5	approx. 0.2 mi. S of the Tension Station, W of Taiya R.	seepage	thin organic layer	ferns, grasses, sedges, alders, willows, ericaceous species, <i>Veratrum</i> sp., <i>Geum calthifolium</i>	31	Jul	2002
Long Hill	44	59.681	135.251	643	boggy area on top of a knoll at treeline	1	approx. 0.2 mi. S of the Tension Station, W of Taiya R.				31	Jul	2002
Long Hill	45	59.683	135.249	664	small pools from receding snow melt at treeline	1	approx. 1 m S of Tension Station	snow melt pools			31	Jul	2002
Long Hill	46	59.680	135.251	657	sparsely vegetated talus slope with drainages	7	just SE of Tension Station, E side of Taiya R. where a drainage runs into the R.	talus slope	rocky mineral soil	<i>Empetrum nigrum</i> , <i>Loiseleuria procumbens</i> , <i>Phylloboea aieutica</i> , <i>Vaccinium uliginosum</i> , alpine willows, <i>Taraxacum</i> spp., <i>Alnus</i> spp., <i>Salix</i> spp.	1	Aug	2002
Long Hill	47	59.684	135.246	678	boulder field, near low alder-willow thicket with small rivulets	1	just NW of Tension Station, on W side of trail	sloping boulder field	rocky mineral soil		1	Aug	2002

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Table 1 (cont.). Collection site descriptions.

Region	Site	Lat(dd)	Long(dd)	Elev. (m)	Habitat	# of Collections	Specific locality	Topography	Substrate	Associated Plants	Day	Month	Year
Long Hill	48	59.680	135.251	634	steep rocky alpine river valley with low alders and willows	1	approx. 0.25 mi S of Tension Station	side of alpine river valley	rocky mineral soil	<i>Salix sitchensis</i> , <i>Salix alaxensis</i> , sedges, <i>Calamagrostis canadensis</i> , <i>Poa</i> spp., <i>Saxifraga bronchialis</i> ,	1	Aug	2002
N Canyon	17	59.616	135.319	250	sloping hemlock stand with some birch, moss understory	1	W of Canyon City trail crew cabin	mountain slope	organic soil	<i>Menziesia ferruginea</i> , <i>Lycopodium</i> spp., <i>Geocaldon lividum</i>	9	Jul	2002
N Canyon	24	59.630	135.304	255	closed hemlock spruce stand with moss understory	1	approx. 0.5 mi S of Pleasant Camp, near trail	hill	organic soil	<i>Tsuga heterophylla</i> , <i>Picea glauca</i> , <i>Vaccinium</i> spp., <i>Menziesia ferruginea</i>	12	Jul	2002
N Canyon	25	59.634	135.298	242	edge of pool	1	approx. 0.25 mi below Pleasant Camp	pool's edge			12	Jul	2002
N Canyon	26	59.635	135.292	207	cut riverbank in open hemlock-cottonwood stand	2	Taiya R. bank just S of Pleasant Camp	cut riverbank	sand with cobbles and gravel		12	Jul	2002
N Canyon	27	59.638	135.290	240	alder willow thicket on river bar	1	Taiya R. bar	river bar	sand/gravel	grasses, <i>Alnus</i> spp., <i>Salix</i> spp.	12	Jul	2002
N Canyon	28	59.620	135.322	132	semi-open rocky spot in trail surrounded by a dense hemlock stand	1	approx. 1.5 mi N of Canyon City	hill	mineral soil	<i>Tsuga heterophylla</i>	12	Jul	2002
Scales	36	59.691	135.240	667	scree slope with drainages	2	Scales, just off the trail	scree slope	moss on rock		29	Jul	2002
Scales	37	59.695	135.237	1069	alpine tundra with large granitic outcrops and fragmented boulders, in pass	4	the summit, approx. 0.2 mi. SW of Canadian warden cabin	mountain pass			30	Jul	2002
Scales	38	59.695	135.249	1204	alpine tundra with large granitic outcrops and fragmented boulders, in pass	1	the summit, approx. 0.5 - 1.0 mi W of Canadian warden's cabin	near mountain top			30	Jul	2002
Scales	39	59.697	135.234	1095	alpine slope with scattered boulders	2	the summit, approx. 40 m W of Canadian warden's cabin	alpine slope	thin organic layer	<i>Luetkea pectinata</i> , <i>Carex</i> spp., <i>Luzula</i> spp.	30	Jul	2002
Scales	40	59.698	135.233	1096	alpine pass with boulder fields & granitic outcrops	2	the summit, just off trail near warming hut	mountain pass	mineral soil		30	Jul	2002
Scales	41	59.692	135.238	1096	alpine pass with boulder fields & granitic outcrops	3	half way up the Golden Staircase	mountain pass	mossy rock crack		30	Jul	2002

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Table 1 (cont.). Collection site descriptions.

Region	Site	Lat(dd)	Long(dd)	Elev. (m)	Habitat	# of Collect ions	Specific locality	Topography	Substrate	Associated Plants	Day	Month	Year
Sheep Camp	29	59.652	135.267	135	stream bank in cottonwood-spruce stand	1	just W of Sheep Camp	stream bank	organic soil with some sand	<i>Equisetum arvense</i> , <i>Senecio triangulans</i> , <i>Opiopanax homidus</i> , <i>Aruncus</i> spp., <i>Athyrium filix-femina</i>	26	Jul	2002
Sheep Camp	30	59.663	135.257	334	alder thicket	1	approx. 1 mi N of Interpretive Cabin above ranger's cabin at Sheep Camp, near trail	side of river valley	organic with some sand	<i>Alnus sinuata</i> , <i>Calamagrostis canadensis</i> , <i>Streptopus amplexifolius</i> , <i>Athyrium filix-femina</i> , <i>Dryopteris expansa</i> , <i>Alnus sinuata</i> , <i>Salix</i> spp., <i>Aruncus sylvestris</i> , many small forbs	26	Jul	2002
Sheep Camp	31	59.660	135.263	334	stream bank in spruce-cottonwood stand	1	approx. 1 mi N of Interpretive Cabin near Sheep Camp	stream bank	rocky mineral soil		26	Jul	2002
Sheep Camp	32	59.656	135.264	308	small boggy ponds with alders on one side and hemlock-spruce stand on the other	8	W side of the Taiva R., across and below Sheep Camp	boggy ponds	growing in sphagnum	<i>Tsuga heterophylla</i> , <i>Picea sitchensis</i> , <i>Viburnum edule</i> grasses, sedges, <i>Potamogeton gramineus</i> , <i>Meryanthes</i>	27	Jul	2002
Sheep Camp	33	59.648	135.274	257	open sphagnum bog with two small ponds	6	W side of the Taiva R., approx. 1 mi. S of Sheep Camp	bog	in muck and sphagnum in standing water	<i>Empetrum nigrum</i> , <i>Vaccinium</i> spp., <i>Nuphar polysepalum</i> , many <i>Carex</i> spp., <i>Ledum</i> spp., <i>Meryanthes trifoliata</i> .	27	Jul	2002
W Canyon	5	59.618	135.333	155	grassy spruce, birch, cottonwood woodland with scattered alder	1	approx. 1/8 mi W of the trail near historical Canyon City cabin remains		organic soil	<i>Alnus</i> spp., <i>Betula papyrifera</i> , <i>Populus trichocarpa</i> , <i>Picea sitchensis</i> , <i>Calamagrostis canadensis</i> , <i>Orthilia secunda</i>	7	Jul	2002
W Canyon	6	59.612	135.336	100	area of glacial activity, small open rocky area surrounded by alder thicket and spruce-	1	approx. 1/8 mi W of the trail near historical Canyon City cabin remains		organic soil with some sand	<i>Alnus sinuata</i> , <i>Picea sitchensis</i> , <i>Populus trichocarpa</i>	7	Jul	2002
W Canyon	7	59.610	135.326	100	dried up side channel of glacial river	6	W of Chilkoot Trail, N side of the Nourse R.	dried side river channel	sand	various grass species, <i>Epilobium latifolium</i>	7	Jul	2002
W Canyon	8	59.608	135.323	53	glacial outwash area, in open cottonwood-spruce forest with alder	1	W of Chilkoot Trail, approximately 1/8 mi N of Nourse R., in woods S of Canyon City			<i>Populus trichocarpa</i> , <i>Picea sitchensis</i> , <i>Alnus</i> spp., grasses, <i>Athyrium filix-femina</i>	7	Jul	2002
W Canyon	9	59.608	135.319	91	wet rock face near waterfall	1	stream near Canyon City campground	rock face near waterfall			7	Jul	2002
W Canyon	15	59.593	135.322	50	semi-open mixed cottonwood-hemlock-spruce stand	1	approx. 1.5-2 mi N of Finnegans		organic soil	<i>Tsuga heterophylla</i> , <i>Populus trichocarpa</i> , <i>Picea sitchensis</i> , <i>Aruncus</i> sp., <i>Alnus sinuata</i> , grasses, sedges	8	Jul	2002
W Canyon	18	59.601	135.323	65	glacial outwash area, in open cottonwood stand with some spruce and alder and open, grassy	2	rock garden area between Finnegans and Canyon City			<i>Populus trichocarpa</i> , <i>Picea sitchensis</i> , <i>Alnus</i> spp., grasses	9	Jul	2002
W Canyon	19	59.606	135.321	98	large hemlock stand with uneven moss understory	1	approx. 0.2 mi S of Canyon City warming shelter		thin organic-moss layer covering rock		9	Jul	2002

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Table 1 (cont.). Collection site descriptions.

Region	Site	Lat(ddd)	Long(ddd)	Elev. (m)	Habitat	# of Collections	Specific locality	Topography	Substrate	Associated Plants	Day	Month	Year
W Canyon	20	59.608	135.321	92	riverbank	1	N of Canyon City shelter on the bank of the Talya R.	riverbank	sandy soil		9	Jul	2002
W Canyon	21	59.609	135.321	87	glacial outwash area, open site of moss-covered rocks and herbs, surrounded by cottonwood stand with many forbs	3	SW of trail leading to historical Canyon City		organic soil	<i>Alnus</i> spp., grasses, sedges, <i>Populus trichocarpa</i> , <i>Tsuga heterophylla</i> , <i>Picea sitchensis</i>	10	Jul	2002
W Canyon	22	59.612	135.329	90	open grassy area and cottonwood stand with many forbs	2	approx. 0.5-1.0 mi SW of historical Canyon City, N of Nourse R.		organic, moss covered rocks	<i>Populus trichocarpa</i> , grasses	11	Jul	2002
W Canyon	23	59.615	135.338	83	large open spruce stand with mossy ground and scattered alders	1	approx. 1-2 mi SW of historical Canyon City & 0.25 mi N of Nourse R.		organic soil	<i>Picea sitchensis</i> , <i>Alnus</i> spp., grasses, <i>Lycopodium complanatum</i> , other forbs	11	Jul	2002
W Canyon	16	59.607	135.320	100	sloping spruce-hemlock stand leading to river	1	approx. 2.5 mi N of Finnegans, trail's edge near rock and wood stairs	river valley slope	organic soil	<i>Picea sitchensis</i> , <i>Tsuga heterophylla</i> , <i>Opiopanax horridus</i> , <i>Menziesia ferruginea</i> , ferns, mosses	8	Jul	2002
White Pass East	62	59.612	135.139	862	crack in granitic rock face near railroad tracks	4	exposed rock face on E side of train track, S of the 'American Shed' sign	crack in rock face	thin mineral layer in rock crack		10	Aug	2002
White Pass East	63	59.611	135.140	861	granitic rock face near railroad tracks	1	exposed rock face on E side of train track, S of the 'American Shed' sign	rock face	thin mineral layer		10	Aug	2002
White Pass East	64	59.609	135.140	842	small ledge on granitic rock face near railroad tracks	1	approx 0.25 mi S of the 'American Shed' sign, off of tracks	rock face	thin loamy cover with moss		10	Aug	2002
White Pass East	66	59.622	135.131	937	treeline, wet ericaceous tundra mixed with sedge-forb meadow in drainage	1	E shore of Pump House Lake	drainage	muck in pool		11	Aug	2002
White Pass East	67	59.620	135.131	876	treeline, drainage at base of boulder field, moss-covered edge of rivulet	1	E shore of Pump House Lake	drainage	organic soil		11	Aug	2002
White Pass East	68	59.622	135.134	881	rocky lakeshore near treeline, at base of small puddle near shore	6	E shore of Pump House Lake	lakeshore	organic gravelly muck		11	Aug	2002
White Pass East	224	59.615	135.134	936	ericaceous tundra	8	ridge 0.5 mi SE of Summit LK	alpine stream bank	loamy	<i>Phyllodoce glanduliflora</i> , <i>Sargisiorba canadensis</i> , <i>Artemisia arctica</i> , <i>Carex macrochaeta</i>	7	July	2003
White Pass East	225	59.615	135.130	970	melt pond surrounded by ericaceous heath	2	wide ridge SE of Summit LK	alpine meltpond		<i>Eriophorum angustifolium</i> (?), <i>Eleocharis</i> sp., <i>Geum calthifolium</i> , <i>Vaccinium uliginosum</i> , <i>Carex macrochaeta</i>	7	July	2003

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Table 1 (cont.). Collection site descriptions.

Region	Site	Lat(ddd)	Long(ddd)	Elev. (m)	Habitat	# of Collect ions	Specific locality	Topography	Substrate	Associated Plants	Day	Month	Year
White Pass East	226	59.616	135.118	989	ericaceous tundra, alpine heath	17	wide ridge SE of Summit LK	alpine slope	mossy soils over large diontic boulders	<i>Phyllodoce glauciflora</i> , <i>Harrimanella stellariana</i> , <i>Abies lasiocarpa</i>	7	July	2003
White Pass East	227	59.613	135.101	1028	alpine willow-herbaceous meadow, bordered by ericaceous heath next cracks in outcrops in ericaceous tundra, alpine heath	3	Eastern fork of White Pass River	alpine stream bank	thin soil layer w/ moss & lichen over diontic boulders	<i>Harrimanella stellariana</i> , <i>Tsuga mertensiana</i> , <i>Salix</i> sp., <i>Carex macrochaeta</i>	7	July	2003
White Pass East	228	59.626	135.137		rocky outcrops and cliffs	1	wide ridge SE of Summit LK	alpine slope	fine soil in large diontic boulders	bare rock	8	July	2003
White Pass East	229	59.612	135.143	864	rocky outcrops and cliffs	8	near railroad tracks at American Shed	outcrops/cliffs	thin, loose soil between diontic bedrock	<i>Saxifraga bronchialis</i> , <i>Epilobium latifolium</i> , <i>Heuchera glabra</i>	8	July	2003
White Pass East	230	59.607	135.143	841	overgrown gravel access road next to train tracks	8	access road near maintenance shed at rr tracks	overgrown roadbed	diontic fine gravel and mud	<i>Alnus viridis</i> , <i>Epilobium angustifolium</i> , <i>Poa</i> sp., <i>Sibbaldia procumbens</i>	8	July	2003
White Pass South	49	59.569	135.144	648	disturbed rocky area near tracks	4	not far from train tracks		mineral soil	<i>Elymus</i> spp., <i>Juncus bufonius</i> , <i>Epilobium angustifolium</i> , <i>Erigeron</i> spp., <i>Agrostis</i> spp., <i>Achillea millefolium</i> , many	4	Aug	2002
White Pass South	50	59.568	135.145	666	wet rock face with plants growing in cracks	2	off of tracks at Slippery Rock	rock face	moss on damp rock	<i>Sanguisorba</i> spp., <i>Alnus sinuata</i> , <i>Parnassia firniniata</i> , <i>Parnassia palustris</i> , <i>Arnica lessingii</i> , <i>Carex</i> spp.,	4	Aug	2002
White Pass South	51	59.567	135.144	663	wet rock face with plants growing in cracks	1	off of tracks at Slippery Rock	rock face	loamy mat near base of rock wall	<i>Alnus sinuata</i> , <i>Achillea millefolium</i> , <i>Solidago</i> spp., ferns, <i>Heuchera glabra</i> , <i>Calamagrostis canadensis</i> ,	4	Aug	2002
White Pass South	52	59.565	135.162	489	disturbed ditch by tracks	1	E of Heney, approx. 1 m off of tracks	ditch	rocky mineral and organic mix		5	Aug	2002
White Pass South	53	59.561	135.157	484	open muskeg area with Sphagnum and leafy mosses	1	S side of Skagway R. and approx. 0.2 mi E of telephone line going to White Pass City		organic covered with moss	<i>Sanguisorba</i> spp., <i>Gymnocarpium dryopteris</i> , <i>Viola</i> spp., <i>Equisetum arvense</i> , <i>Calamagrostis canadensis</i> ,	5	Aug	2002
White Pass South	54	59.566	135.165	464	disturbed side of railroad tracks	5	approx. 0.5 mi. W of Heney, off of tracks		gravely mineral soil		5	Aug	2002
White Pass South	55	59.563	135.156	490	open disturbed area near railroad tracks	1	N of Heney		gravely mineral soil		5	Aug	2002
White Pass South	219	59.571	135.198	578	disturbed roadside	5	Along the road near Bridal Veil Falls	lower slope of road	diontic fine gravel	<i>Alnus sinuata</i> , <i>Picea sitchensis</i> , <i>Elymus (trachycaulis?)</i>	7	July	2003

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Table 1 (cont.). Collection site descriptions.

Region	Site	Lat(dd)	Long(dd)	Elev. (m)	Habitat	# of Collections	Specific locality	Topography	Substrate	Associated Plants	Day	Month	Year
White Pass South	248	59.568	135.194	424	large dioritic rock outcrop along splash zone of creek	6	Captain Moore Creek, ca. 150 m down from Klondike Hwy	steep drainage	fine soil in cracks- 90% bare ground	<i>Arnica lessingii</i> , <i>Heuchera glabra</i> , <i>Calamagrostis canadensis</i> , <i>Carex macrochaeta</i> , <i>Alnus viridis</i>	11	July	2003
White Pass South	249	59.567	135.194	420	small graminoid-sphagnum fen in spruce-hemlock forest	1	Captain Moore Creek, ca. 150 m down from Klondike Hwy	steep drainage	thick sphagnum moss	<i>Sphagnum</i> spp., <i>Cornus canadensis</i> , <i>Sanguisorba canadensis</i> , <i>Calamagrostis canadensis</i>	11	July	2003
White Pass West	1	59.615	135.165	947	moist alpine snow drainage at and above treeline, with granitic outcropping	24	E side of Klondike Hwy., a few miles S of the Canadian border	alpine drainage		<i>Calamagrostis canadensis</i> , other grasses, <i>Epilobium latifolium</i> , <i>Phyllodoce empetritiformis</i> , <i>Lycopodium</i>	29	Jun	2002
White Pass West	56	59.630	135.156	1088	small pool between rock outcrops, above treeline	1	near summit, approx. 0.25 mi E of Klondike Hwy.	small pool		<i>Luetkea pectinata</i> , <i>Carex</i> spp., <i>Cassiope mertensiana</i> , <i>Phylodoce aleutica</i> , lichens	8	Aug	2002
White Pass West	57	59.630	135.154	1113	alpine tundra, pools between glacial-scraped outcrops	1	near summit, approx. 0.25 - 0.50 mi. E of Klondike Hwy.	alpine pools edge	mucky	<i>Hierchiole alpinum</i> , <i>Salix</i> spp., <i>Carex</i> spp., <i>Empetrum nigrum</i> , <i>Artemisia arctica</i> , <i>Luzula</i> spp., lichens	8	Aug	2002
White Pass West	58	59.631	135.156	1089	alpine tundra, pools between glacial-scraped outcrops	2	approx. 0.25 mi E of Klondike Hwy.	mountain	thin organic layer under moss	<i>Empetrum nigrum</i> , <i>Salix</i> spp., <i>Cassiope stelleriana</i> , <i>Carex</i> spp., <i>Ericaceous</i> species, <i>Abies lasiocarpa</i> , <i>Tsuga</i>	8	Aug	2002
White Pass West	59	59.615	135.161	953	seep at and above treeline with rock outcrops on either side	2	E side of Klondike Hwy., S of summit	seepage	thin organic layer under moss	<i>Tsuga mertensiana</i> , <i>Abies lasiocarpa</i> , <i>Salix</i> spp.	8	Aug	2002
White Pass West	60	59.618	135.159	1028	alpine drainage between rock outcrops	2	approx. 0.20 mi E of Klondike Hwy., a few miles S of summit	alpine drainage	in moss on rock		8	Aug	2002
White Pass West	61	59.617	135.159	1005	seep at and above treeline with rock outcrops on either side	1	approx. 0.20 mi E of Klondike Hwy., a few miles S of summit	seepage		<i>Saxifraga nelsoniana</i> , <i>Saxifraga lyallii</i> , <i>Ranunculus</i> spp., <i>Carex</i> spp., <i>Mitella</i> spp., <i>Petasites frigidus</i>	8	Aug	2002
White Pass West	65	59.625	135.137	918	small meadow at treeline with creek running through it	1	hills W of train tracks	alpine slope	thin layer of organic with moss on rock	<i>Geum calthifolium</i> , <i>Epilobium latifolium</i> , <i>Parnassia fibrinata</i> , <i>Abies lasiocarpa</i> , <i>Salix</i> spp., <i>Vaccinium</i> spp., <i>Sanguisorba</i>	11	Aug	2002
White Pass West	70	59.596	135.163	1130	alpine pools between outcrops, Sphagnum mat near puddle with <i>Eriophorum</i> spp. and	1	approx. 50 m S of repeater, W of railroad tracks	puddle's edge		<i>Abies lasiocarpa</i> , <i>Eriophorum</i> spp., <i>Carex</i> spp.	15	Aug	2002
White Pass West	222	59.625	135.136	896	crack in granitic rock face near railroad tracks	3	Border and RR tracks	edge of cut bank	fine soil in rocks	<i>Epilobium latifolium</i> , <i>Arabis lyrata</i> , <i>Sagina saginoides</i> , <i>Taraxacum officinalis</i>	7	July	2003
White Pass West	231	59.603	135.145	727	Forb-graminoid meadow and <i>Menziesia ferruginea</i> /near <i>Vaccinium</i>	5	upper White Pass Fork, below American Shed	subalpine slope	moist humus	<i>Calamagrostis canadensis</i> , <i>Athyrium filix-femina</i> , <i>Epilobium latifolium</i>	8	July	2003

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Table 1 (cont.). Collection site descriptions.

Region	Site	Lat(ddd)	Long(ddd)	Elev. (m)	Habitat	# of Collections	Specific locality	Topography	Substrate	Associated Plants	Day	Month	Year
White Pass West	232	59.605	135.149	825	Open steep talus slope	1	upper White Pass Fork, SW of American Shed	subalpine slope	fine soil in large dioritic boulders	bare rock	8	July	2003
White Pass West	233	59.605	135.145	867	Dioritic cliff-face/mossy ledges	4	upper White Pass Fork, SW of American Shed	alpine slope	fine soil/moss in bedrock	<i>Pentophylla floribunda</i> , <i>Dryas alaskana</i> , <i>Festuca altaica</i> , <i>Saxifraga bronchialis</i> , <i>Saxifraga oppositifolia</i> , <i>Artemisia arctica</i>	8	July	2003
White Pass West	234	59.609	135.149	939	ericaceous tundra, alpine heath	1	upper White Pass Fork, SW of American Shed	alpine slope	fine soil in large dioritic boulders	<i>Harmannelia stellaniana</i> , <i>Carex macrochaeta</i> , <i>Lycopodium alpinum</i>	8	July	2003
White Pass West	235	59.625	135.141	933	cracks in outcrops in ericaceous tundra, alpine heath	1	ridge 0.5 mi SW of Summit LK	alpine slope	fine soil in large dioritic boulders	<i>Abies lasiocarpa</i> , <i>Tsuga mertensiana</i> , <i>Cornus canadensis</i> , <i>Carex macrochaeta</i>	9	July	2003
White Pass West	236	59.625	135.145	967	edge of snowmelt pond	2	ridge 0.5 mi SW of Summit LK	alpine pond edge	gravely soils with layer of moss	<i>Petasites hyperboreus</i> , <i>Equisetum</i> , <i>Carex gynocrates</i> (?)	9	July	2003
White Pass West	237	59.625	135.148	1027	ericaceous tundra, alpine heath meadow	1	ridge 0.5 mi SW of Summit LK	alpine slope	moist humus	<i>Phyllocladus glanduliflora</i> , <i>Harmannelia stellaniana</i> , <i>Abies lasiocarpa</i> , <i>Luetkea pectinata</i>	9	July	2003
White Pass West	238	59.625	135.152	1045	edge of streambank/snowbed	2	ridge 0.5 mi SW of Summit LK	alpine streambank	moist humus	<i>Saxifraga nelsoniana</i> , <i>Luetkea pectinata</i> , <i>Petasites hyperboreus</i> (?)	9	July	2003
White Pass West	242	59.616	135.151	967	edge of small streambank	2	ridge 0.5 mi SW of Summit LK	alpine slope	moist humus	<i>Luetkea pectinata</i> , <i>Harmannelia stellaniana</i> , <i>Parmassia palustris</i> , <i>Ranunculus eschscholtzii</i> .	9	July	2003

CHILKOOT UNIT:

Dyea/West Creek –

Collections occurred from the confluence of West Creek to intertidal habitats in Dyea on 30 June, 4 July, 14-17 August 2002 and 10-11 July 2003. The location was approximately 59.49°N and 135.36°W, between 0-5 m in elevation (Fig. 5). Habitats of the Dyea area included intertidal beaches, intertidal sedge-forb meadows, ponds, and open Sitka spruce forests. Dominant plants of tidal communities were *Puccinellia nutkaensis*, *Plantago maritima*, *Argentina egedii*, and *Honckenya peploides*. The sedge-forb meadows were dominated by *Carex lyngbyei*, *Poa eminens*, *Argentina egedii*, and *Dodecatheon pulchellum*. Dominants of the open meadows in spruce forests were *Iris setosa*, *Picea sitchensis*, and *Alnus viridis* ssp. *sinuata*. A closed, wooded fen was also inventoried, which was dominated by *Equisetum arvense*, *Circaea alpina*, *Athyrium filix-femina*, *Alnus oregona*, and *Picea sitchensis*.

A few collections were made that fell outside of the park boundary. On 3 July 2002 a portion of the Taiya River valley was surveyed on the western side, above the confluence with West Creek (59.53°N and 135.40°W, at approximately 130 m in elevation; Fig. 4). The topography is a narrow river valley, spilling out on an uplifted tidal plain. Slopes ranged from 5 to 20°. Habits ranged from tall alder-willow thickets to moist, mixed Sitka spruce-paper birch forest with occasional forb-graminoid openings. Soils were sandy near the creek, becoming increasingly organic in the forested areas. The primary dominants in the forested area were *Gymnocarpium dryopteris*, *Athyrium filix-femina*, *Prenanthes alata*, *Aruncus dioicus*, *Streptopus amplexifolius*, and *Geranium erianthum*.

On 11 July 2003, a small degraded wetland adjacent to the Dyea Ranger Station was inventoried. This was a saturated fen, terminating in a partially obstructed culvert with *Carex aquatilis* var. *dives* (*C. sitchensis*), *Calamagrostis canadensis*, *Epilobium hornemannii*, and *Rhinanthus minor* dominating.

Finnegan’s Point –

Collections were made on 8 July 2002 at Finnegan’s Point and surrounding areas (59.58°N and 135.35°W). Finnegan’s is located at 7.74 km on the Chilkoot Trail and is near the banks of the Taiya River (Fig. 7). Collections occurred between 30 m and 90 m elevation. Habitats were varied and included riverbanks and riverbeds, mixed forb and alder-willow stands near the river’s

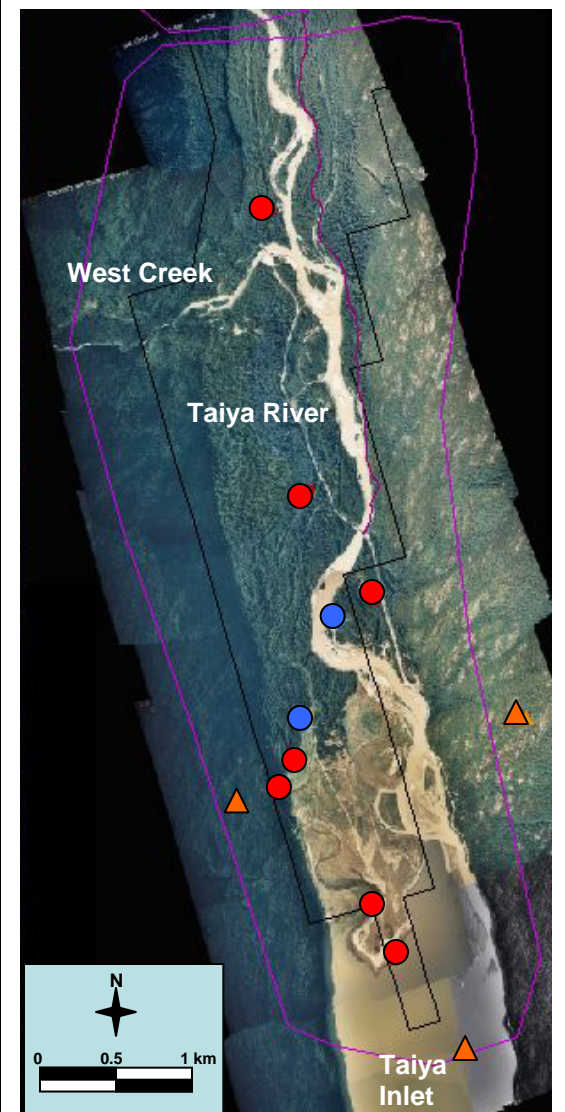


Figure 5. Dyea area of the lower Chilkoot Unit. AKNHP collections from 2002 and 2003 are blue and red circles, respectively. Approximate locations of previous collections are shown as orange triangles.

edge, closed western hemlock-Sitka spruce stands with occasional cottonwoods present and open meadows with slow moving streams. The substrates ranged from well-drained and sandy to organic and saturated. Notable dominants from riverine habitats were *Alnus viridis* ssp. *sinuata*, *Salix* spp., and *Chamerion latifolium* (*Epilobium latifolium* sensu Hultén 1968) (Fig. 6). In the mixed forb-shrub stands *Aruncus dioicus*, *Alnus viridis* ssp. *sinuata*, grasses, and sedges were dominant. Predominant understory plants of the closed forest habitats were *Gymnocarpium dryopteris*, *Pyrola asarifolia*, *Orthilia secunda*, and *Oplopanax horridus*. Dominant stream bank plants included *Aconitum delphiniifolium*, *Arnica lessingii*, *Senecio triangularis*, *Platanthera hyperborea*, *Equisetum* spp., *Angelica lucida*, ferns, mosses, and liverworts. Lichens accounted for a small proportion of biomass at this site.

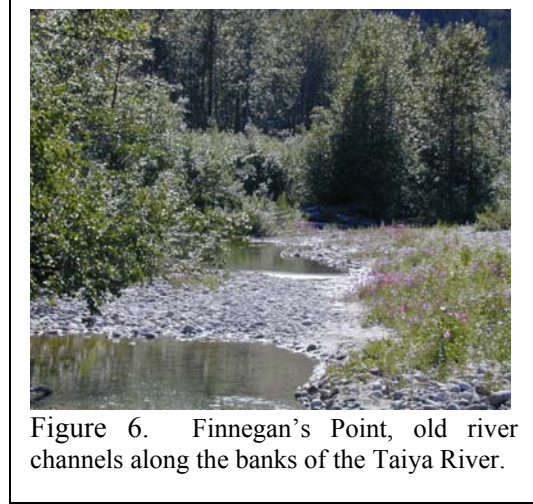
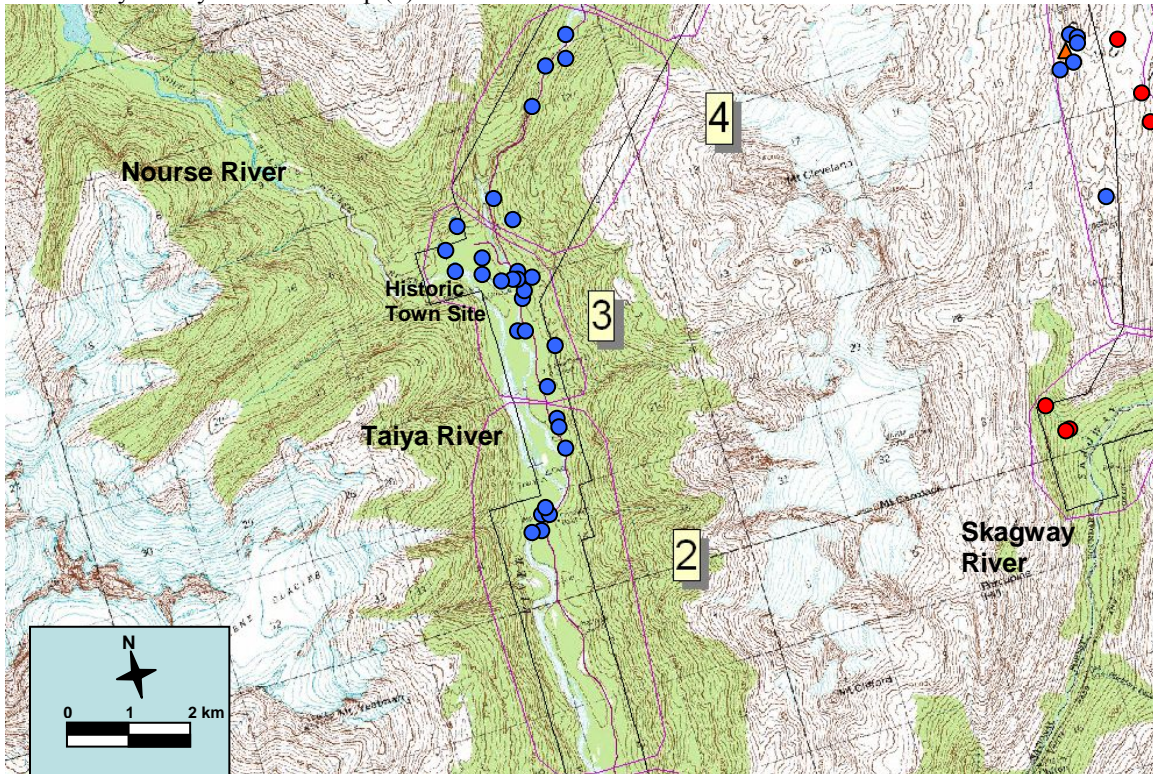


Figure 6. Finnegan's Point, old river channels along the banks of the Taiya River.

West Canyon City –

From 7 to 11 July 2002 the field crew inventoried areas near the Nourse River, historical Canyon City, and around the Canyon City campground. The location was at 59.61°N and 135.32°W and ranged from 50 m to 100 m in elevation (Fig. 7). The sampling area encompassed the west and east sides of the Chilkoot Trail from 10.0 km to 12.3 km. The primary focus was on the area west of the trail, which includes the Nourse River and the forested area near the historical town site.

Figure 7. Map of the Chilkoot Unit collection areas: Finnegan's Point (2), West Canyon City (3), and North Canyon City/Pleasant Camp (4).



The Nourse River is a glacial river running down a small valley that is a corridor for floodwaters that spill out of Nourse Lake. The soils are a mixture of sand, loam, and more developed organic soils. Often there was a thin organic/moss layer over river cobbles and boulders. The areas sampled near Nourse River included dried-up side channels, alder and willow thickets, and the riverbank. The forested area ranged from woodland to open forest with mixed conifer and broadleaf species and with small graminoid and forb openings. Tree species found were *Picea sitchensis*, *Tsuga heterophylla*, *Populus balsamifera* ssp. *trichocarpa*, and *Betula papyrifera*. Shrub thickets were dominated by *Alnus viridis* ssp. *sinuata*, *Salix sitchensis*, and *S. alaxensis*. The most abundant understory plants were *Calamagrostis canadensis*, *Poa* spp., *Festuca* spp., *Oplomanax horridus*, *Chamerion angustifolium*, and *C. latifolium*, *Athyrium filix-femina*, various *Carex* spp., *Menziesia ferruginea*, *Pyrola asarifolia*, mosses, and lichens.

North Canyon City/Pleasant Camp –

On 9 and 12 July 2002, the sloping forested area behind the trail crew cabin and a dense hemlock stand near the trail were surveyed. Along the Chilkoot Trail the area is approximately 2.0-3.0 km north of Canyon City campground and includes the region between the trail and two kilometers to the east (Fig. 7). The location was at 59.63°N and 135.30°W and ranged from 132 m to 255 m in elevation. River banks, pond margins and openings in western hemlock forests were inventoried. Soils were primarily organic and densely covered with moss in the hemlock forest and were composed of sand and cobbles along the river. *Tsuga heterophylla* was the dominate tree species. *Menziesia ferruginea*, *Lycopodium annotinum*, and *Geocaulon lividum* were the most abundant species in the understory.

Sheep Camp –

On 26 July 2002 and 27 July 2002, collections were made near Sheep Camp. The areas surveyed were approximately between 16.80 km and 19.00 km of the Chilkoot Trail. The site was located at 59.65°N and 135.26°W and ranged from 135-334 m in elevation (Fig. 9). The collections were made along the Taiya River in a sphagnum fen within a closed forested stand (Fig. 8). The soils were generally saturated sphagnum mats. Dominate species occurring in the forested habitats were *Tsuga heterophylla*, *Picea glauca*, *Populus balsamifera* ssp. *trichocarpa*, *Vaccinium alaskaense* (*V. alaskensis* sensu Hultén 1968), and *Menziesia ferruginea*. The fen was characterized by *Empetrum nigrum*, *Vaccinium uliginosum*, *Nuphar luteum* ssp. *polysepala*, many *Carex* spp., *Ledum groenlandicum*, *Menyanthes trifoliata*, *Eriophorum* spp., *Eleocharis* spp., *Drosera rotundifolia*, *Geum calthifolium*, and *Rubus chamaemorus*.

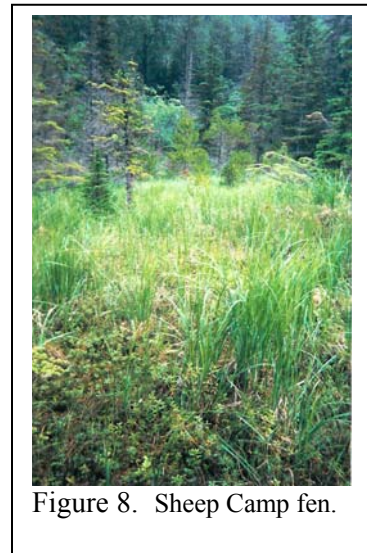
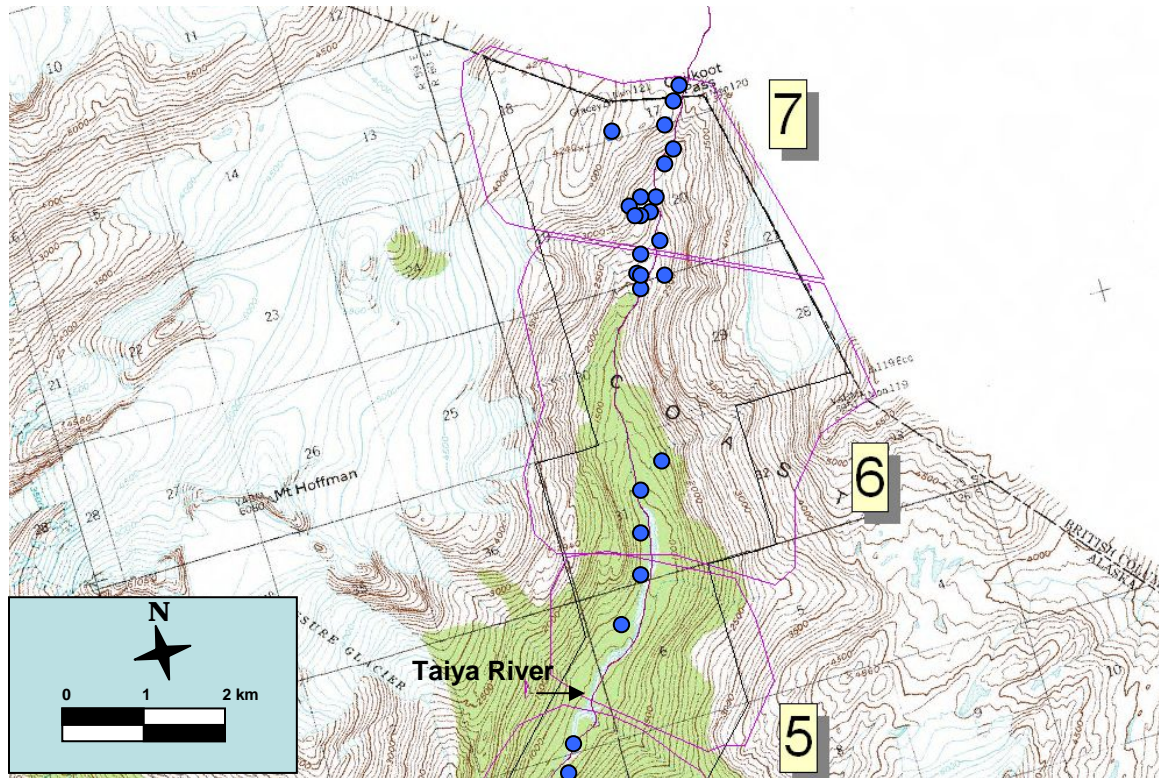


Figure 8. Sheep Camp fen.

Figure 9. Upper Chilkoot Unit. 5 = Sheep Camp, 6 = Long Hill, and 7 = The Scales/Chilkoot Summit.



Long Hill –

Long Hill is situated between Sheep Camp and the Scales along the Chilkoot Trail, at 59.69°N and 135.24°W, between 643 and 845 m elevation (Fig. 9). The crew collected specimens on 28, 31 July 2002, and 1 Aug 2002. Long Hill extends through subalpine to alpine habitats, including forb-graminoid meadows, seeps, ericaceous heath, talus slopes and krummholz (stunted timberline trees) fir stands. The east side of the valley is steep, well-drained, and tended to be sparsely vegetated. The west side of the valley supported ericaceous heath, meadows, and lush seeps. Soils were thin and undeveloped. Along the Taiya River soils were rocky (gravel and cobbles) and were dominated by low growing alders, willows, and grasses. The vegetation was diverse in this region: including *Geum calthifolium*, *Chamerion latifolium*, and *Carex* spp., *Alnus viridis* ssp. *sinuata*, *Salix ovalifolia* in forb-graminoid meadows and seeps; ericaceous heath was dominated by *Empetrum nigrum*, *Harrimanella stellariana* (*Cassiope stellariana* sensu Hultén), and *Vaccinium uliginosum*, and krummholz stands were dominated by *Tsuga mertensiana* and *Abies lasiocarpa*.



Figure 10. Long Hill, looking east from the trail.



Figure 11. Steep, subalpine drainage at Long Hill.

The Scales/Chilkoot Summit – On 29 July 2002 and 30 July 2002 the crew sampled habitats from The Scales, including the Golden Staircase, to and Alaska-B.C. border area (Fig. 9). The location was situated at 25.7 km to 26.6 km on the Chilkoot Trail at 59.70°N and 135.25°W, between 667 and 1204 m elevation. This alpine site was composed of steep scree slopes with partially vegetated rock outcrops and a gently sloping basin with large, exposed dioritic boulders (Fig. 12). Snow beds remained in shaded areas, with significant runoff draining through the basin, collecting in pools at the base of the slope. Substrates were undeveloped and rocky, generally composed of a thin layer of lichens, moss, and organics over dioritic bedrock or boulders. The dominant plant species at this area were *Luetkea pectinata*, *Carex macrochaeta*, *C. nigricans*, *C. podocarpa*, and *Luzula* spp.

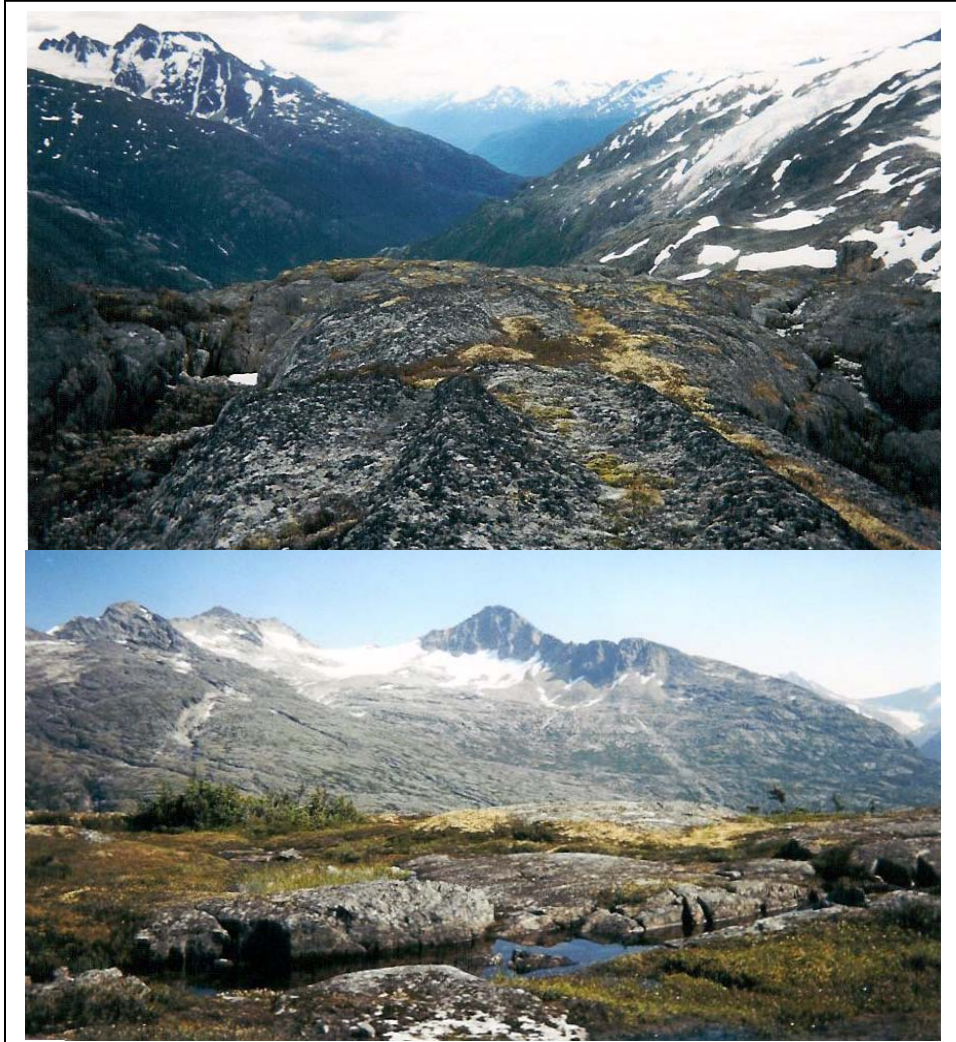


Figure 12. Chilkoot Summit.

WHITE PASS UNIT:

South White Pass –

On 4 and 5 August 2002 and on 5, 7 and 11 July 2003 the crews sampled the southern third of the White Pass Unit area between Bridal Veil Falls (59.57°N and 135.20°W) to Heney (59.56°N and 135.16°W) and White Pass City (Fig. 13). This area included a large elevation gradient from the Klondike Highway at Bridal Veil Falls to the Skagway River (420 – 648 m elevation). The plant habitats were steep, moist Sitka spruce-menzieisia forests with occasional rock outcrops, dominated by the herbaceous species: *Heuchera glabra*, *Carex macrochaeta*, and *Calamagrostis canadensis* (Fig. 14). Along the Skagway River willow-alder scrub dominated. The river corridor is subject to high energy water flow and is lined with loose, large dioritic boulders and bedrock. A small *Sphagnum* fen surrounded by a paper birch-Sitka spruce forest was also inventoried. Imported and mechanically disturbed substrates along the White Pass Railroad corridor were inventoried near Heney on 4 July 2002. These collections fall just outside the park boundary. Soils were mineral along the railroad and on outcrops near Bridal Veil Falls; substrates were organic and well drained near the river; and saturated peat in the *Sphagnum* fens. In the Skagway River valley the dominant plants were *Sanguisorba canadensis*, *Gymnocarpium dryopteris*, *Equisetum arvense*, *Calamagrostis canadensis*, *Oplopanax horridus*, *Menziesia ferruginea*, and *Alnus viridis* ssp. *sinuata*. Near the railroad tracks weedy species such as *Plantago major*, *Matricaria discoidea*, and *Galeopsis bifida* were most prolific.

Figure 13. Collection regions and sites along the White Pass Unit. 8 = South White Pass, 9 = West White Pass/Dead Horse Gulch, 10 = East White Pass. Specific locations where plants were collected are shown as blue (2002) and red (2003) circles.

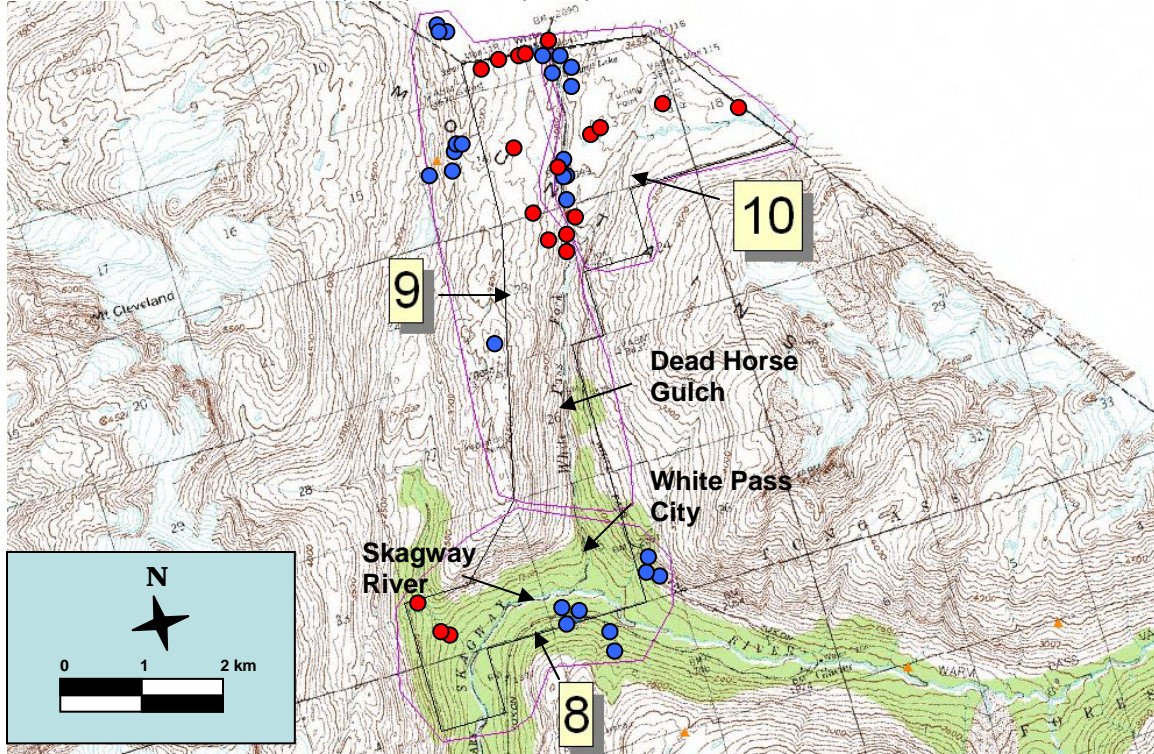




Figure 14. Rock outcrop (and NPS biology technician, Amber Bethe) in Sitka spruce forest along Bridal Veils Falls, above the Skagway River in the South White Pass Area.



Figure 15. AKNHP botanist collecting specimens in the West White Pass area, near Inspiration Mine.

West White Pass/ Dead Horse Gulch –

The western portion of the White Pass Unit runs from approximately White Pass City north and west, bordered by White Pass Fork to the east and the park boundary to the west (Fig. 13). This region (from approximately 59.56°N and 135.15°W to 59.62°N to 135.20°W) was surveyed on 8 and 9 July 2003. The elevations ranged from 489 m to 862 m and traversed a deeply incised canyon, cloaked in alder and rusty menziesia, to a broad mountain pass. The soils tended to be a thin humus layer overlaying dioritic bedrock. At the lowest elevations, soils had a deeper organic layer. The plant community is dominated by *Luetkea pectinata*, *Harrimanella stellariana*, *Abies lasiocarpa*, and by the lichens *Cladina* spp. and *Cladonia* spp. in mesic sites. On saturated sites the alpine vegetation was characterized by *Parnassia palustris*, *Ranunculus eschscholtzii*, *Carex micropoda* (*Carex pyrenaica* sensu Hultén) and *Petasites frigidus* var. *nivalis* (*P. hyperboreus* sensu Hultén).

Inclement weather limited sampling opportunities in 2002 near Dead Horse Gulch. We were unable to access this area in 2003 due to time and logistical constraints. Observations from sites along Bridal Veil Falls and 1 km north of Dead Horse Gulch suggested that the vegetation community was Sitka spruce-mountain hemlock forest and steep menziesia, devil's club, and salmonberry shrublands. This is a habitat type surveyed elsewhere and which is low in species diversity. Thus, it is unlikely that a large number of species new to the park would occur in this area.

On 8 and 15 August 2002 additional collections were made just outside of the park on the western boundary (Fig. 13). Access was gained by hiking east from the Klondike Highway. The site was an alpine pass scoured by recent glacial activity, ranging from 825 m to 1130 m in elevation (Fig. 15). Most of the collecting occurred at or near 59.63°N and 135.15°W. Habitats surveyed included alpine tundra, alpine meadows, stunted alpine fir and hemlock stands, mountain seeps, and pools nestled between exposed dioritic outcrops. Collections were all above treeline. Soils were generally a poorly developed organic layer overlaying boulders and bedrock. *Abies lasiocarpa* and *Tsuga mertensiana* were the primary tree species. The dominant understory species encountered were *Luetkea pectinata*, *Carex macrochaeta*, *Empetrum nigrum*, *Salix* spp.,

Vaccinium uliginosum, *Cassiope mertensiana*, *Phyllodoce glanduliflora*, *Harrimanella stelleriana*, *Saxifraga* spp., *Geum calthifolium*, *Chamerion latifolium* and many species of *Cladonia* and *Cladina* lichens.

East White Pass – The upper eastern portion of the White Pass Unit (approximately 59.61°N and 135.14°W, Fig. 14) was first surveyed on 10 and 11 August 2002. In 2002, weather and time constraints limited sampling at this location and sampling was restricted to the area around the railroad tracks. The AKNHP returned in 2003 and sampled more intensively from 7 to 9 July. The area from Pump House Lake, east across the broad summit to a gently sloping valley at the northeastern park border was well botanized. The crew was unable to cross the east drainage of the White Pass Fork, thus the northwest-facing slope was not sampled. The plant community assemblages looked very similar to those on the north side of the drainage, however. Elevations ranged from 841 m to 1028 m. The topography of the area is a broad pass, scored by recent glaciation, which has left a multitude of parallel ridges, about 20-30 m in height, running northeast-southwest. The ridges are generally exposed dioritic bedrock with strands of more developed soils and vegetation tucked in more stable and sheltered locations (Fig. 17). Species of the

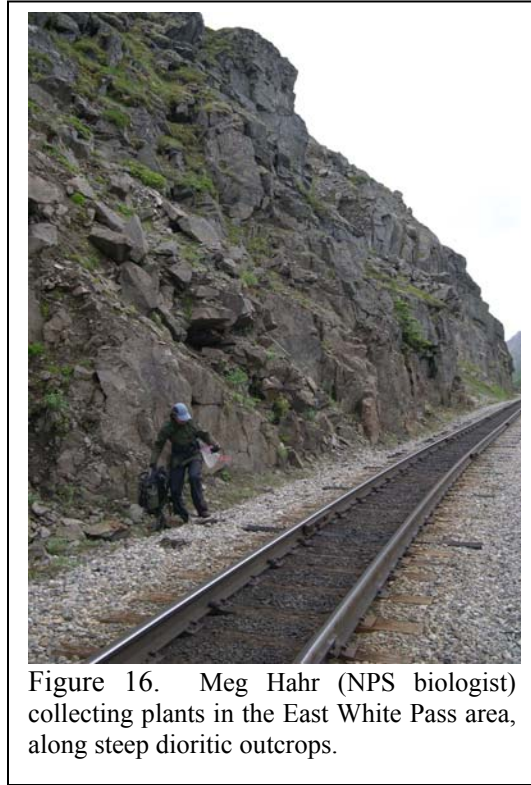


Figure 16. Meg Hahr (NPS biologist) collecting plants in the East White Pass area, along steep dioritic outcrops.

fruiticose lichen genera *Cladina* and *Cladonia* compose a significant portion of ground cover at this region (see foreground of Fig. 17, 18). Narrow and deeply incised creek drainages also characterize the area. Alpine ponds and streams were common between the ridges and were sampled heavily. The substrates at this location varied from fine, saturated muddy soils to loamy and organic soils, to bedrock. *Harrimanella stellariana*, *Phyllodoce glanduliflora*, and *Luetkea pectinata* were the dominant heath-forming species. *Carex macrochaeta*, *C. nigricans*, and *C. micropoda*, *Eriophorum angustifolium*, and *Festuca altaica* were dominant graminoid species. *Salix arctica* and *S. commutata* were common willows. In moist alpine meadows, forbs such as *Petasites frigidus* var. *nivalis* (*P. hyperboreus* sensu Hultén) *Geum calthifolium*, and *Chamerion latifolium*, were dominant.



Figure 17. Alpine ridge and looking to the East White Pass area. *Abies lasiocarpum* and *Tsuga mertensiana* are the dominant tree species. Note yellowish lichens in the foreground.



Figure 18. Alpine ridge and pond in the East White Pass area. *Abies lasiocarpum* and *Tsuga mertensiana* are the dominant tree species. *Carex*, *Eleocharis*, and *Eriophorum* species are found in the pond.

Field Methods

Fieldwork was conducted by a single team of two to three botanists at each region in 2002 and 2003; this included AKNHP botanists Matt Carlson, Claudia Rector, and Michelle Sturdy, and NPS biologists Steven Tillotson, Amber Bethe, and Meg Hahr.

Access to the majority of sites in 2002 was by foot and White Pass Train and in 2003 sites were accessed by car and foot. At each region we made a complete floristic inventory using the following methods:

- Each region was mapped on an aerial photo or USGS topographic map and a georeference point was recorded using GPS. The routes surveyed were also mapped. Representative photos were taken of each region including communities, unusual landforms, and notable plants.
- A description of each region was recorded and significant landforms and plant associations described.
- As new communities were encountered, the following data were recorded: vegetation type, slope, aspect, elevation, topographic position, moisture, soil types, parent material, cover classes of growth forms and bare ground, and dominant species by growth form.
- A complete species list was made for each region.
- Additional data were gathered specific to the location, habitat, etc. in which plants were collected (these collection localities are referred to as "collection sites"). The nature of data collected is discussed in the following section.
- Vouchers were collected and curated as discussed below.

Vouchers and Curation

Voucher specimens were collected for those species that are new to the park or eco-region, species of concern (rare, endemic, exotic), geographic or ecological range extensions and specimens not identifiable in the field. The following data were collected for each vouchered specimen: date, unique collection number, latitude and longitude (NAD27, decimal degrees); slope, aspect, elevation, topographic position, associated landforms, associated species, vegetation class, substrate, soil moisture, soil type, drainage, parent material, cover class and frequency class, notes on characters not preserved well, associated photo number, phenology and ecological observations. A "collection site" is a location in which plants with the same specific latitude, longitude, habitat type, and collection date are collected. Collection sites can include from just a single vouchered specimen to over 20, and is confined to an area of less than 400 m² of similar habitat attributes.

The size of the population and area surveyed was included for species of concern.

Collections were made only if the population was large enough to support removal of individuals and followed the collecting protocol of Murray and Parker (1990) and Parker and Murray (1992). Duplicate or triplicate collections were made when possible, allowing the first set to be archived at ALA and the second set to be sent to the park.

Specimens were sorted, examined and identified by AKNHP botanists who collected them and the collections were then sent to ALA where notable finds and difficult taxa were reviewed by the museum staff. As needed, specimens were sent out to authorities by ALA for determination.

Under a cooperative agreement with ALA, specimens to be archived at ALA and KLGO herbaria were prepared at ALA.

At the park level, specimens will be curated through the import of data into ANCS+ and NPSpecies. Specimens returned to parks from ALA will be filed and accessioned. In addition, catalog ledgers will be updated and loan forms completed. Rare plant sighting forms (with maps) were completed for taxa with an AKNHP rank of S3 or less.

Products

The AKNHP has agreed to supply the NPS with this Final Technical Report that also includes:

1. An annotated species list describing all taxa and the basic geographic and habitat attributes of each park unit (Appendix II).
2. Preparation of rare plant species lists for each unit, with notes on conservation status, biogeographic affinities, habitat preferences and related data (Appendix III).
3. Publication-quality maps for selected species such as species of special concern or major range extensions that result from this project.

In addition, the AKNHP has supplied/will supply the following to NPS:

4. A complete set of mounted and curated voucher specimens, to be housed at the Herbarium of the University of Alaska (ALA), with a set of duplicates supplied to the park.
5. Work with NPS to create a fully populated NPSpecies, and ANCS+ databases for each park unit
6. Final reports describing the results of the inventory in each park unit
7. GIS data layers with links to plant databases (GIS attributes discussed in Appendix V)

RESULTS

Significant increases in numbers of vascular plant species verified for KLGO were made in 2002 and 2003. We collected, recorded, and curated a total of 283 specimens. A total of 174 separate taxa were represented and 55 are new to the park. A number of finds were of taxa of conservation concern or range extensions. Significant results from collections are described for each of the regions. An annotated species list describing all taxa and the basic topographic and habitat attributes is presented in Appendix II. Appendix III gives a list of rare species encountered.

Dyea/West Creek –

A total of 27 species were collected in the park from the lower portion of the Taiya River valley from West Creek to tidewater at Dyea on 3, 4 July and 14-17 August 2002, and 10, 11 July 2003. The location was approximately 59.53° N and 135.40° W (Fig. 4). Six additional species were collected outside of the park boundary. Common habitats were alder-willow thickets to moist, mixed Sitka spruce-paper birch forests, and intertidal communities.

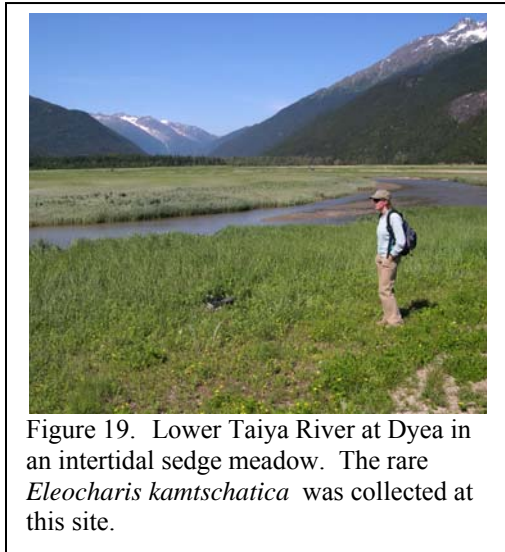


Figure 19. Lower Taiya River at Dyea in an intertidal sedge meadow. The rare *Eleocharis kamtschatica* was collected at this site.

Despite exploring a number of different community types, we did not encounter a high diversity of species. Within each community-type only a few species were typically encountered. For example in the intertidal sedge meadows, *Carex lyngbyei* composed 90% of the biomass, with the remaining 10% composed of the widespread (and previously collected in KLGO) species *Poa eminens*, *Lathyrus japonicus* var. *maritimus*, *Argentina egedii* (*Potentilla egedii*), *Plantago maritima*, *Dodecatheon pulchellum*, and *Puccinellia nutkaensis* (Fig. 19). From this habitat we did, however, collect the rare spike rush, *Eleocharis kamtschatica*, which is restricted globally and quite rare in the state (G4-S2). This species may be more common, but is often overlooked. It was recently collected near the Haines airport in 2000 (Parker

2001). The population was approximately 300 ramets (genetically distinct individuals were impossible to distinguish with such extensive rhizomatous connections).



Figure 20. Site of garden throw-outs in Dyea.

Additionally, we encountered a number of non-native plants in this section of the park. Well established populations of the invasive, oxeye daisy (*Leucanthemum vulgare*) were found along the road system in Dyea in Sitka spruce forests (59.51537° N and 135.34927° W). This species has been identified as a noxious weed, invading native grasslands in five states (USDA PLANTS Database 2003). Currently, individuals appear to be restricted to roadsides, suggesting the plants are moderately shade intolerant. Additionally,

we encountered a stand of big leaf lupine, *Lupinus polyphyllus*, on the Taiya River floodplain (59.50833° N and 135.35° W), which was not collected in KLG0 prior to 2002. This species is considered introduced in Alaska from the Pacific Northwest by most authors (e.g., Hultén 1968). It appears that it was planted widely as an ornamental at the beginning of the century.

A small area of garden throw-outs in an open Sitka spruce forest was observed along the Dyea road (59.50154° N and 135.3593° W), which included rhubarb (*Rheum rhabarbrum*) and a number of garden weeds (e.g., *Capsella bursa-pastoris*, *Chenopodium album*, and *Stellaria media*; Fig. 20). While these introductions will likely fail, garden throw-outs have been the source of considerable environmental degradation elsewhere (Preston et al. 2002).

Perhaps most shocking is the discovery of a well-established population of eye-bright, *Euphrasia nemorosa*, found along a slough north of the tide flats in Dyea (59.5034° N and 135.3544° W, Fig. 21). This northern European species is a new record for the park as well as Alaska and is a serious weed in British Columbia and in northeastern North America. The population size was estimated at 100 individuals and in an area of 20 m².

Finnegan's Point –

Sixteen species were collected from riverine and spruce-hemlock communities near Finnegan's Point (59.58°N and 135.33°W; Fig. 6). Eight of these were new records for the park: *Agrostis mertensii* (*A. borealis* sensu Hultén 1968), *Cerastium beeringianum*, *Chrysosplenium tetrandrimum*, *Epilobium lactiflorum*, *Juncus castaneus*, *Parnassia kotzebuei*, and *Tellima grandiflora* (see Fig. 22). All of these species are common in Alaska and most have a holarctic distribution (Europe, northern Asia, North America).



Figure 21. *Euphrasia nemorosa*. Photo is from <http://www.habitas.org.uk/flora/species.asp?Item=4155>.

West Canyon City –

Eighteen species were collected from glacial river terraces and adjacent alder-willow thickets near the confluence of the Nourse and Taiya Rivers (Fig. 7). *Botrychium multifidum*, *Carex macrochaeta*, *C. pachystachya*, *Osmorrhiza chilensis*, *Poa glauca*, *Poa pratensis* ssp. *pratensis*, *Polystichum braunii*. *Botrychium multifidum* is a large and distinctive grapefern that is fairly restricted in its range in Alaska, occurring in the northern Panhandle and Aleutians, despite having a global distribution. The other species new to the park at this location are all common in southern Alaska, but are not showy and therefore often overlooked. *Poa glauca* was only found in this location, but it likely occurs in other sites with sandy soils.



Figure 22. *Tellimia grandiflora*. Photo courtesy of Jan Anderson.

North Canyon City/Pleasant Camp –

On 9 and 12 July 2002, seven taxa were collected in the area between Canyon City Campground and Pleasant Campground. The collected species were two widespread sedges (*Carex canescens* and *C. disperma*), the diminutive fescue, *Festuca brachyphylla*, and *Epilobium hornemannii*. The species new to the park were *Juncus balticus* var. *montanus* (widespread in interior Alaska, but rare in the Panhandle), the clubmoss, *Lycopodium dendroideum* (previously unknown from central to northern southeast Alaska), and *Minuartia macrocarpa* (Fig. 23).

Minuartia macrocarpa represents a considerable range extension to the southwest of its known distribution, as most populations located west of 140°W and north of 60°N. Additional populations of the taxon have recently been collected in the nearby Glacier Bay Park and Preserve by AKNHP.



Figure 23. *Minuartia macrocarpa*.

Sheep Camp –

Seventeen specimens were collected on 26 and 27 July 2002 near Sheep Camp, from a saturated fen with small muskeg ponds (Fig. 24). Seven collections were of common wetland plants of Alaska, previously collected in KLGO. Red cotton grass, *Eriophorum russeolum* was not previously known from KLGO, but is widespread in southern Alaska and is not unexpected. *Carex loliacea*, however, is a wetland sedge of interior Alaska and Yukon (Fig. 25A, B). The collection in KLGO is a range extension of approximately 200 km to the southeast of known populations in western Yukon.



Figure 24. Pond/fen at Sheep Camp. Associated species were *Tsuga heterophylla*, *Picea sitchensis*, *Viburnum edule*, grasses, sedges, *Potamogeton gramineus*, *Menyanthes trifoliata*, *Hippuris vulgaris*, *Eriophorum* spp., *Vaccinium oxycoccus*, and *Alnus viridis*.

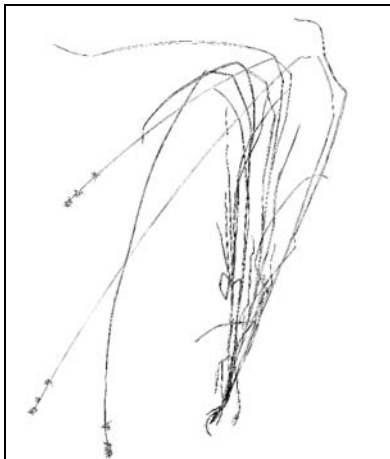


Figure 25A. *Carex loliacea*, a wetland sedge of interior Alaska, collected at Sheep Camp.



Figure 25B. Photo of *Carex loliacea*. Images are from <http://linnaeus.nrm.se/flora/mono/cypera/carex/carelol.html>

Long Hill –

Long Hill was sampled on two days (28 July and 1 August 2002) and 26 separate species were collected between Sheep Camp and the Scales. This area had a diversity of community types, from mid-elevation alder-dominated forests to subalpine meadows (see Fig. 26) at 800 m. The majority of collections from this location were of species previously collected in the park and widespread in southern Alaska, such as *Salix ovalifolia*, *Carex nigricans*, and *Erigeron peregrinus*. Eleven species were new to KLGO: *Carex spectabilis*, *C. macrochaeta* (collected numerous times elsewhere in 2002), *Gentiana glauca*, *Juniperus communis*, *Luzula arcuata* ssp. *unalaschensis*, *Parnassia kotzebuei* (collected numerous times elsewhere in 2002), *Pedicularis capitata* (Fig. 27.), *Poa arctica*, *Salix myrtillofolia*, and *Salix sitchensis*. All of these species are expected to occur in the northern Panhandle.



Figure 26. Subalpine meadow community at Long Hill, dominated by *Salix barclayi*, *Sanguisorba canadensis*, *Erigeron peregrinus*, and *Carex* spp.



Figure 27. *Pedicularis capitata* - a species of mesic tundra.

The Scales/Chilkoot Summit –

On 29 and 30 July 2002 the crew collected 14 taxa from The Scales, from the area called the Golden Staircase, to the summit. Two of these species (*Stellaria calycantha* and *Hieracium triste*) were collected just outside of the park on the summit and are expected to occur within the park boundary as well. Four separate species of saxifrages were collected from moist alpine drainages (see Fig. 28), and two of these, *Saxifraga cernua* (Fig. 29) and *S. tenuis* (*S. nivalis* var. *tenuis* sensu Hultén 1968), were new park records. *Carex podocarpa* and *C. lachenalii* were new sedges to KLG. All of these species were expected to occur in the park and all have holarctic distributions.



Figure 28. Moist, alpine community at the summit, dominated by *Luetkea pectinata*, *Harrimanella stellariana*, and *Carex* spp. Four species of *Saxifraga* were collected from this area.



Figure 29. *Saxifraga cernua* (bulblet saxifrage). Photo is from <http://www.mun.ca/biology/delta/arcticf/images/b0667033.jpg>.

WHITE PASS UNIT:**South White Pass –**

Twenty-seven taxa were collected from Bridal Veil Falls along the Klondike Highway, east to Heney and White Pass City. Nine of these collections were outside of the park. Three were new to KLGO in 2002: *Anaphalis margaritacea*, *Descurainia sophioides*, and *Galeopsis bifida*. Along the railroad and highway corridor a considerable number of non-native species were encountered, such as *Cerastium fontanum*, *Galeopsis bifida*, *Matricaria discoides*, and *Plantago major*. *Galeopsis bifida* is an invasive species in areas with moderate soil disturbance in central Alaska; *G. tetrahit* (hempnettle; Fig. 30) is very closely related to *G. bifida* and is listed as “Noxious” in Alaska (see <http://www.cnipm.org/plants.html>). This close relative of *G. bifida* has established in native habitats on Admiralty Island, Southeast Alaska (M. Shephard, pers. comm.). All of the introduced species appeared to be restricted to the disturbed substrates of the road and railroad fill, and were not observed invading intact communities. The well drained substrates near the Klondike Highway also supported a large population of *Oxytropis campestris* var. *varians* (Fig. 31), a taxon generally associated with drier, more interior climates (see synonym: *O. campestris* ssp. *gracilis*; Hultén 1968).



Figure 30. *Galeopsis tetrahit* a noxious weed in Alaska and close relative of the invasive, *G. bifida*, which was collected near Heney. Photo is from <http://www.cnipm.org/plants.html>.



Figure 31. *Oxytropis campestris* var. *jordalii*, a sister taxon of *O. campestris* var. *varians*: a native species of dry, sandy substrates, uncommon in southeastern Alaska.

A large dioritic rock outcrop along lower Bridal Veil Falls-Captain Moore Creek (Fig. 14) had a number of generally alpine associated species, such as *Arnica lessingii*, *Carex macrochaeta*, and *Trisetum spicatum*, despite its relatively low elevation of 424 m. *Arnica lessingii* (Fig. 32) is widespread throughout much of Alaska, but is restricted only to the northern most portions of the Panhandle (Hultén 1968).

In a small fen in a Sitka spruce-menziesia forest (Fig. 33) near Bridal Veil Falls in 2003, we collected specimens from a second population of *Carex loliacea*, a taxon that is a moderate range extension to the south. There were less than 50 individuals of this interior Alaska sedge growing in saturated sphagnum moss, with *Cornus canadensis*, *Sanguisorba canadensis*, and *Calamagrostis canadensis*.



Figure 32. *Arnica lessingii*, a native alpine species.



Figure 33. Small fen in Sitka spruce forest where *Carex loliacea* was collected.

West White Pass/ Dead Horse Gulch –

Between White Pass City, Dead Horse Gulch, and the western half of White Pass, we encountered habitats at lower elevation that were dominated by *Alnus viridis*, *Picea sitchensis*, and *Menziesia ferruginea*. We were unable to collect in the immediate Dead Horse Gulch area. At higher elevations, habitats were generally ericaceous tundra with small strands of *Abies lasiocarpa* and *Tsuga mertensiana*. We collected 20 species within the park boundary and an additional 37 on Tongass National Forest lands to the west of the KLGO.

Three species collected in the West White Pass/Dead Horse Gulch area were new to the park from this region. *Dodecatheon frigidum* was extremely widespread throughout moist habitats above 800 m in the White Pass Unit. *Castilleja parviflora* is a magenta-colored painbrush of the north Pacific Coast Mountains, which was occasionally observed in mesic, alpine tundra in KLGO. Last, *Carex micropoda* (*C. pyrenaica* ssp. *micropoda* sensu Hultén 1968) is a wetland sedge, encountered along alpine streams and saturated snow beds.

A number of species were collected near the park boundary that are currently listed as “probably present.” These species have a high probability of occurring in the park and a minimal level of effort would be required to document them in the White Pass Unit. *Dryas octopetala*, *Huperzia selago*, *Ranunculus nivalis*, and *Stellaria longipes* (*S. monantha* sensu Hultén 1968) were collected in a moist seep just east of the Klondike Highway. *Dryas octopetala* is common throughout Alaska, except in the Panhandle. However, there is a known collection from “White Pass Summit” by Bolton in 1898 housed at the National Herbarium in Washington D.C. (NPSpecies); it is unknown whether this collection is from the Alaska or British Columbia side, however. In 2003, we collected *Draba stenoloba*, a yellow-flowered draba, from a rocky outcrop near Summit Lake, just outside of the park in the B.C. (Fig. 34). *Kalmia polifolia* (bog laurel) is an ericaceous shrub collected from the ridge, near Inspiration Mine, just outside of the park. This species is generally restricted to peaty soil in southeast



Figure 34. Alaska-British Columbia, Canada border, where *Draba stenoloba* was collected.

Alaska, the Pacific Northwest, and boreal Canada (Hultén 1968, Pojar and MacKinnon 1994).

East White Pass –

The AKNHP crew was unable to access much of the eastern portion of the White Pass Unit in 2002, with most of the collecting confined to alpine ponds near the railroad line. Collecting was more extensive in 2003, encompassing the broad summit, just east of the White Pass Fork, to the extreme eastern corner of the park unit. The eastern corner of the park was a wide, lush, alpine valley, with much greater soil development than the rest of the White Pass Unit.

A total of 61 specimens were collected, 11 of which were new to the park: *Aconitum delphiniifolium* ssp. *delphiniifolium*, *Carex lachenalii*, *Claytonia sarmentosa*, *Draba glabella* (*D. hirta* sensu Hultén 1968), *Draba lonchocarpa*, *Juncus castaneus*, *Parnassia kotzebuei*, *Potentilla nana*, *Potentilla uniflora*, *Sagina nivalis*, and *Saxifraga caespitosa*. Two of these taxa (*Carex lachenalii* and *Parnassia kotzebuei*) were collected in other areas of KLGO by AKNHP botanists in 2002 and 2003 and are discussed in previous sections.

The larger subspecies of larkspurleaf monkshood (*Aconitum delphiniifolium* ssp. *chamissonianum*) has previously been collected a few times in the White Pass area and specimens identified as *Aconitum delphiniifolium* have also been collected along the Chilkoot Trail (NPSpecies 2003). Prior to 2003, there were no specimens identified as the more delicate subspecies of larkspurleaf monkshood, *Aconitum delphiniifolium* ssp. *delphiniifolium*. This smaller form was observed often in locations with well-developed, mesic soils

Claytonia sarmentosa (Fig. 35) was a new record for KLGO. It is a common species in Alaska of alpine brooks, and moist meadows. However, this taxon only extends into the Panhandle in the uppermost reaches of Lynn Canal. It has been collected on Mount Raymond along the Chilkat River by Blank and Duffy in 2000 (ALA Database 2004). This species was quite rare in KLGO.

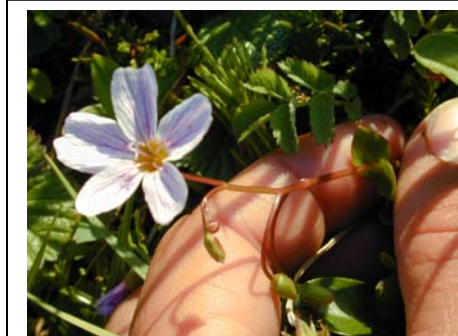


Figure 35. *Claytonia sarmentosa*, a common alpine species in much of Alaska. This species absent from the Panhandle, except mountain passes near Skagway.

Draba glabella, *Sagina nivalis*, *Saxifraga caespitosa*, were all species expected to occur in KLGO. These species are restricted to rocky or sandy-well drained soils and have holarctic distributions. *Juncus castaneus* is a holarctic wetland species collected widely throughout Alaska, including southeastern Alaska.

Draba lonchocarpa var. *lonchocarpa* was collected along the rocky cliff-face in the railroad corridor. Relatively few collections of this taxon are known from Alaska and most are concentrated in the North Slope/Brooks Range. Additional collections are known from the Alaska and St. Elias Ranges and into southern Yukon. In 2000 *Draba lonchocarpa* var. *lonchocarpa* has been collected west of Haines along Takhin Ridge and Four Winds Mountain at about 300 m elevation in southeast Alaska (ALA Database 2004). Collectively, these specimens from the northern reaches of Lynn Canal represent a minor range extension (about 110 km) to the south from more extensive collections in the Yukon Territory, near Jake's Corner (Cody 1996).

Potentilla nana and *P. uniflora* are densely tufted cinquefoils, previously not known from KLGO, but expected to occur. Both specimens were collected from steep, rocky outcrops (Fig. 16).

The most notable find from this area was of the rare species, *Phyllodoce empetriformis*, which was previously listed as “unconfirmed” based on a report by Paustian et al. (1994). Additionally, Bolton made a collection of this species in 1898 at “White Pass” (Hultén 1941-1950). *Phyllodoce empetriformis* is a globally restricted species, occurring from Yukon Territory south to the mountains of Washington, with fewer than five known sites in Alaska (listed as G4-S1S2 by the AKNHP). Carolyn Parker (University of Alaska Museum) collected this species in the nearby Chilkat Mountains, southwest of Haines in 2000. The population in KLG0, was estimated at 100 individuals and covered a small area of 100 m². Additionally, two sites are known from mountains on either side of the Klehini River west of Haines (ALA Database 2004). The population in KLG0 was growing along the banks of the eastern drainage of the White Pass Fork between ericaceous tundra (*Empetrum nigrum*, *Harrimanella stellariana*) and low *Salix commutata* along the stream bank.



Figure 36. *Phyllodoce empetriformis*. Photo is from http://www.ups.edu/faculty/kirkpatrick/fieldbotany/family_pages/Ericaceae/phyllodoce_empetriformis.htm



Figure 37. *Phyllodoce empetriformis* site on the Alaska-British Columbia border, east corner of the White Pass Unit. *Salix commutata* is the dominant shrub in the background, not often encountered elsewhere in KLG0.

DISCUSSION

A vascular plant inventory was conducted by the Alaska Natural Heritage Program in agreement with NPS to provide baseline information for future monitoring and management of natural resources for Klondike Gold Rush National Historical Park. The AKNHP documented the occurrence, distribution, and relative abundance of plants occurring in these units with the primary goal of documenting $\geq 90\%$ vascular plant taxa expected to occur within the parks and improve our understanding of current species distributions.

Significant increases in the number of vascular plant species verified for KLGOP were made in 2002 and 2003. The percent of documented and vouchered taxa in KLGOP rose from 78% to 84% in after the 2002 field season and to 86% in 2003. This included documenting previously unconfirmed taxa, collecting many well-known and widely distributed taxa, but also a number of conservation significance. It is likely that an additional 5-10 taxa can be added to the 640 now verified in the park with a single field season of future collecting in novel habitat types and geographic regions. This would approach the goal of NPS in documenting $\geq 90\%$ vascular plant taxa expected to occur within the park (ca. 35 new taxa are required to achieve 90%).

A number of important finds were made in KLGOP in 2002 and 2003. AKNHP collected two species that are range extensions, six species that are exotic weeds, and two species that are globally and regionally rare. The relevance and importance of the finds are discussed below.

Range Extensions

Carex loliacea Linnaeus:
Ryegrass sedge (Fig. 38) is a circumboreal sedge of mires, wet forests and mossy streams (Toivonen 2002). It ranges from southwestern Alaska to Kodiak Island, the Alaska Range and then east into Yukon (Fig. 38). This species is a loosely tufted, thin-leaved species with several small spikes separated from each other.

We collected two populations of *C. loliacea* in KLGOP, which represent a 170 km range extension to the south. More importantly, these populations



Figure 38. Top, *Carex loliacea* (MacKenzie 1940). Bottom, distribution of *C. loliacea* in Alaska (Tande & Lipkin 2003).

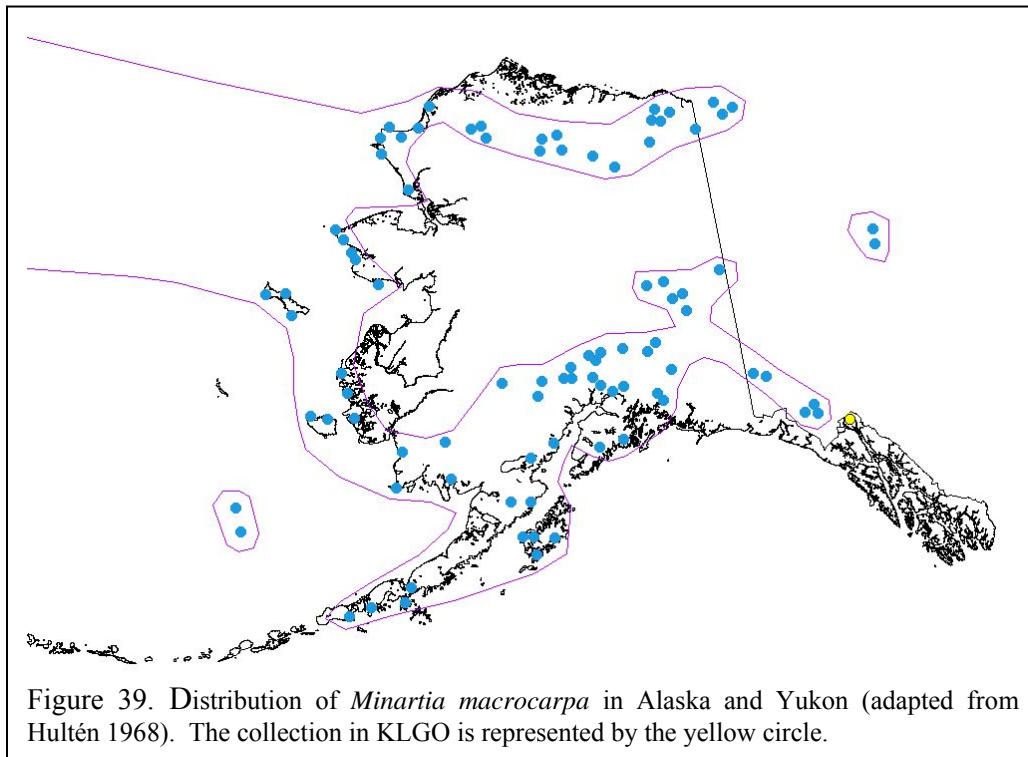
represent an extension of a species' range across the coastal mountains into a separate physiographic province. One population was located along muskeg ponds at Sheep Camp in the Chilkoot Unit. The other population was found in a very small wooded sphagnum fen along Bridal Veil Falls in the White Pass Unit. This species has been suggested to prefer more basic substrates, at least in Scandinavia (Nilsson 1995); however, we collected it in moderately acidic peatlands.

The fact that the habitats where *C. loliacea* was found in KLGO are quite common throughout Southeast Alaska, suggests that this species has expanded from its interior range following the retreat of Boundary Range icesheets approximately 10,000 years ago, rather than from glacial refugia in the Alexander Archipelago. The pattern of interior species arriving relatively late is echoed in mammalian fauna, which used newly formed river corridors for migration (Mann 1986).

Minuartia macrocarpa (Pursh.) Ostenf.:

The Beringian species *Minuartia macrocarpa* (Fig. 23) is found throughout rocky and sandy regions in eastern Siberia, western Alaska, the Alaska and Brooks Ranges, and MacKenzie Mountains of Yukon (Fig. 39). It extends from arctic regions, south to the Alaska Peninsula and Kodiak Island. A few collections are known from southern Yukon, in the St. Elias Mountains near White Horse (Cody 1996), but no specimens have been reported from Southeast Alaska or the southern side of the Coast Range, except one collection by AKNHP in Glacier Bay (Carlson et al. 2004).

AKNHP collected this species near Pleasant Camp in the Chilkoot Unit, on a river bar along the Taiya River. This is roughly a 150 km range extension to the southwest from sites in the St. Elias Range. No other populations of this species were found in the park. The biogeographic history of this species is probably similar to that of *C. loliacea*.



Exotic Species

A number of exotic species were collected in KLGO that were new to the park, or otherwise of conservation concern. The majority of introduced plants were found along roadways, trails, or railroad right-of-ways. These do not appear to pose an imminent risk to the biodiversity and ecosystem of the park; however, they certainly detract from the park's unspoiled visage. Additionally, many serious invasions (e.g., purple loostrife in the Great Lakes region) have erupted after decades of meager persistence. We recommend active management of all exotic plant populations.

Capsella bursa-pastoris (L.) Medik.:

The introduced weed, *Capsella bursa-pastoris* (shepherd's purse) was rare (fewer than 50 individuals) and confined to an isolated garden throw-out along the Dyea Road in an open Sitka spruce forest (59.5015° N and 135.359° W; Fig. 20). This weed is capable of establishing in areas with disturbed substrates, but is not considered a serious threat to native communities. However, destruction of this population as well as of the co-occurring *Chenopodium album*, *Rheum rhabarbrum*, and *Stellaria media* at the site is recommended. We also recommend future monitoring of the site to confirm that no new seedlings are emerging from the seed bank.

Chenopodium album L.:

At the same collection site where *Capsella bursa-pastoris*, *Rheum rhabarbrum*, and *Stellaria media* were found *Chenopodium album* was also collected. This taxon had been collected in KLGO before and is generally associated with well-drained and disturbed substrates. Despite being a weed on all continents, except Antarctica, and successfully establishing in arctic locations such as Svalbard, Norway, this species rarely damages ecosystem function or seriously alters community composition.

Euphrasia nemorosa (Pers.) Wallr.:

Common eye-bright was found along a slough north of the tide flats in Dyea (59.503° N and 135.354° W, Fig. 40). This species is a new record for the park as well as Alaska. It is considered native to continental North America and Europe by USDA, NRCS (2002). However, it is a serious weed in British Columbia and in the northeastern North America. The population size was estimated at 100 individuals and in an area of 20 m². This species is producing significant amounts of seed at the KLGO site.

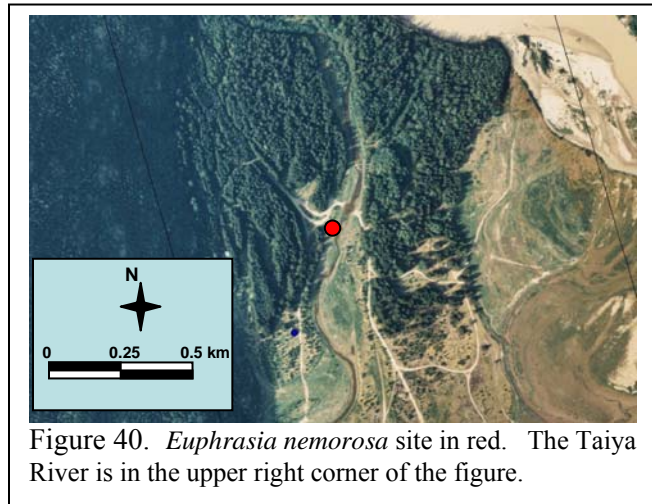


Figure 40. *Euphrasia nemorosa* site in red. The Taiya River is in the upper right corner of the figure.

Galeopsis bifida Boenn.:

Splitlip hempenettle was collected along the White Pass Railway, near Heney (59.566° N and 135.165° W). The population size was fewer than 100 individuals and confined to disturbed soils along the tracks about 10 m in length. This taxon has been noted to invade intact communities and agricultural areas in North American plains states. Seeds are often dispersed as a contaminant in hay.

Railways are notorious corridors for weed invasion and the large populations of invasive species can build along the disturbed substrates. These large populations act as an extensive seed source, sending propagules into intact habitats.

We recommend that populations of exotics along the railway are destroyed every few years. Herbicide application of biodegradable, broad spectrum products such as Roundup® would likely be most effective.

Leucanthemum vulgare Lam.:

In forested road margins in Dyea we observed well established populations of the invasive, oxeye daisy (59.5154° N and 135.3493° W). This species is a noxious weed, invading native grasslands in five states (PLANTS Database 2003). It has been identified by Densmore et al. (2001) as a perennial which persists and spreads in disturbed parks in Alaska. This species is a common component to commercial flower mixes and appears to be spreading and very persistent in disturbed habitats in Alaska (Densmore et al. 2001). Currently, individuals appear to be restricted to roadsides, suggesting the plants are moderately shade intolerant.

Lupinus polyphyllus Lindl.:

Along on the Taiya River floodplain, where the bridge crosses the river (59.508° N and 135.35° W) a few large leaf lupine individuals were observed. This species is considered introduced in Alaska from the Pacific Northwest by most authors (e.g., Hultén 1968). It appears that it was planted widely as an ornamental at the beginning of the century. *Lupinus polyphyllus* is often found outside of areas of human disturbance on the Kenai Peninsula, Matanuska Valley, and in Dry Bay, Glacier Bay National Park. In these locations, plants appear to integrate into the plant community without obvious ecosystem or community alterations.

Rheum rhabarbrum:

A small rhubarb plant was collected along the Dyea road in an opening in a Sitka spruce forest (59.50154° N and 135.3593° W; Fig. 20). This appeared to be a garden throw-out from some months prior, as a small amount of potting soil was visible. This species has not been collected in Alaska before, and is not known for being invasive. The specimen appeared to be quite healthy in 2003, but its long-term survival and ability to produce offspring is questionable. Garden throw-outs, however, have been a serious source of plant invasions in Britain (Preston et al. 2002), and removal of this plant is suggested.

Stellaria media (L.) Vill.

Fewer than 20 individuals of this annual to biennial chickweed were found growing with the above weeds. It is restricted to higher fertility, mesic soils and is not known to persist in native communities.

Additionally, we observed the small composite, *Matricaria discoides*, *Cerastrium fontanum*, *Plantago major*, and *Taraxacum officinale* along roadsides and railways. Few individuals were found widely scattered. These species are primarily restricted to waste places and do not appear to successfully compete with intact communities. Additionally, their distributions are so extensive within the park that management would be a considerable challenge.

Species of Conservation Concern

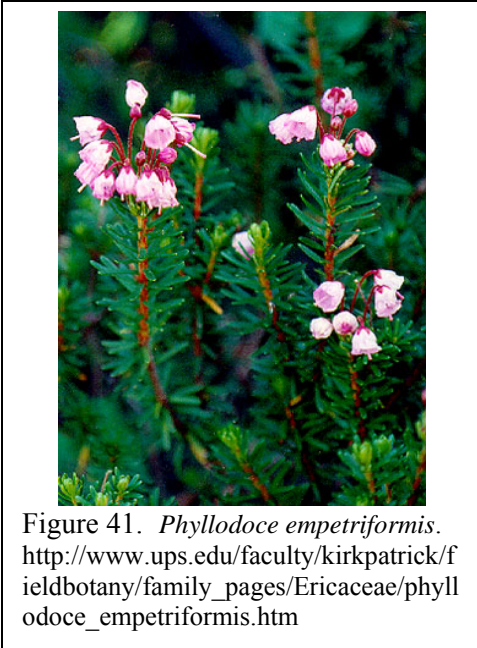


Figure 41. *Phyllodoce empetriformis*.
http://www.ups.edu/faculty/kirkpatrick/fielddbobotany/family_pages/Ericaceae/phyllodoce_empetriformis.htm

Phyllodoce empetriformis (Sm) D. Don. (G4-S1S2): Pink mountain-heather is a low, matted, evergreen shrub of mesic, acidic soils in montane and alpine habitats. The leaves are needlelike and shiny; the flowers are rose-pink nodding, and open (Fig. 41) rather than constricted at the mouth like *P. caerulea* and *P. glanduliflora* (Szczawinski 1962). *Phyllodoce glanduliflora* was found co-occurring with *P. empetriformis* in KLGO. In British Columbia, *P. empetriformis* is known to hybridize with the more widespread, yellow-flowered, *P. glanduliflora*, producing an intermediate form of white to pale rose corollas and other intermediate forms (Meidinger 1999). The hybrid can be quite common and has been described as *P. x intermedia* (Hook.) Camp.

The range of this species is Cordilleran, occurring occasionally from the mountains of California and Wyoming northwest through Washington and British Columbia. The species enters Alaska only at the head of Lynn Canal. While the range of pink mountain-heather is not particularly narrow, populations are restricted to a specific and uncommon high-elevation habitat type. The Washington National Heritage Program identifies two community types composed of *P. empetriformis* as being “high-quality or rare habitat” (see <http://www.dnr.wa.gov/nhp/refdesk/lists/communitiesxco/whatcom.html>).

Four collections of *P. empetriformis* are reliably known from Alaska and these are clustered in mountains along the Klehini River near Haines. Duffy and McWorter made collections in 2000 at Flower Mountain and Four Winds Mountain (ALA 2003). Carolyn Parker (2001) made collections from a population on a granitic outcrop on Takhin Ridge. One collection is from a

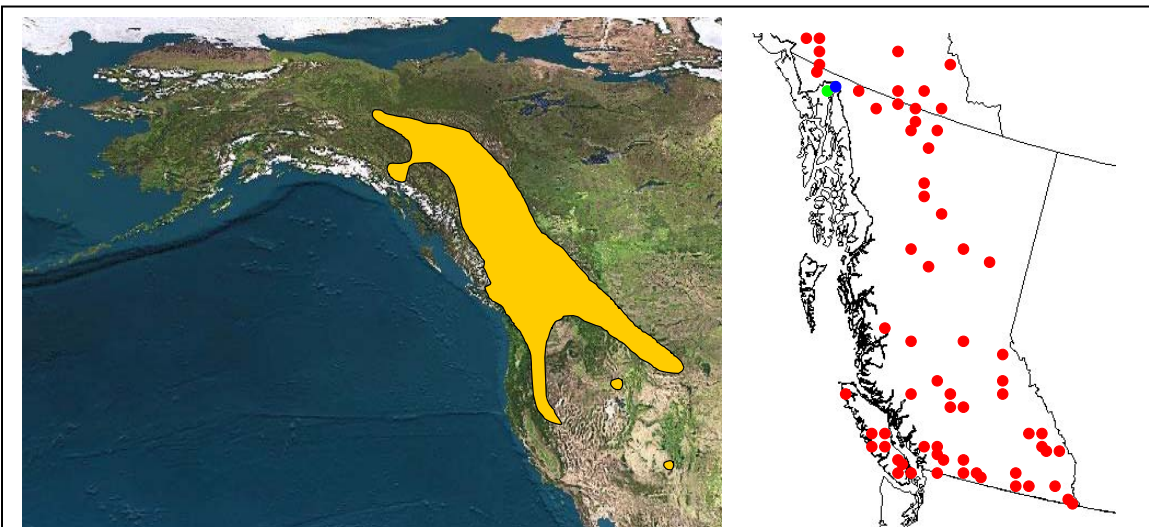


Figure 42. Left, global range of *Phyllodoce empetriformis* shown as the yellow polygon (adapted from Hultén 1968). Right, approximate collection localities are indicated as red circles in Canada and Alaskan collections are shown as green and blue circles (adapted from Cody 1996 and Szczawinski 1962).

nunatak on the Juneau Icefield, the east side of Taku Towers. Beschel collected the specimen in 1965 and stated that it was the only one seen on the Juneau Icefield (AKNHP database 2003). There are a few historic collections (e.g., Bolton 1898, cited in Hultén 1941-1950), likely on the Canadian side, from the White Pass - Summit Lake area.

In a broader, regional context, *P. empetrifomis* is relatively common in the Cassiar Mountains and Yukon Plateau in the north and the Columbia and Cascade mountains of southern British Columbia, but is absent from the west side of the Coast Mountains, except from Vancouver Island south into Washington (Fig. 42). This distribution suggests that the species was primarily found to the south during glacial maxima and has migrated north and up in elevation, tracking appropriate climate and habitat zones (as many species are known to have done, e.g., *Vaccinium*: Camp 1942, *Pinus contorta*: MacDonald and Cwynar 1985, and see Pielou 1992 for additional discussion). A few populations of pink mountain-heather are now stranded on high elevation mountain “islands” in New Mexico and Idaho.

Alternatively, the presence of *P. empetrifomis* on a nunatak in southeast Alaska indicates that it is possible the species may have persisted in situ and later spread to current locations. This seems unlikely since only a single individual has been observed on southeast Alaskan nunataks and may be the result of a chance dispersal event (e.g., mountain goats are known to travel long distances across icefields often stopping to feed and rest at nunataks – plant propagules caught in their wool could thus be deposited at such sites).

The pattern of species expanding their ranges through interior B.C. and then only spilling across the Coast Range in Lynn Canal, rather than migrating along the coastal corridor (with apparently appropriate habitats) from Vancouver Island is curious. However, long-distance dispersal is likely limited for this species (fruits are dry, dehiscent capsules and seeds are not adapted for wind dispersal) and the numerous fjords of the Alexander Archipelago may be a significant barrier to migration. Interior British Columbia is much less geographically fractured and may have offered an unimpeded advance at the heels of retreating glaciers.

Regardless, of the mechanism behind the occurrence of *P. empetrifomis* in the White Pass area, it highlights the importance of this area as a corridor for species interchange.

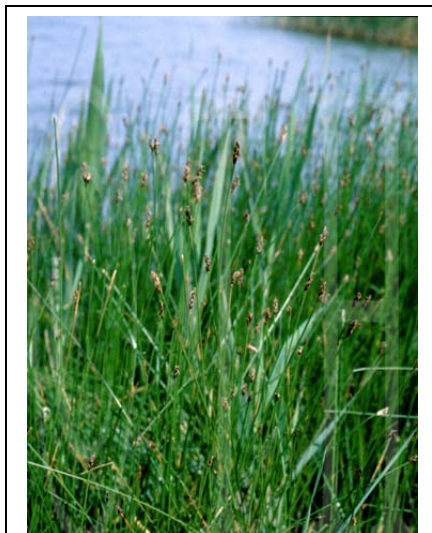


Figure 43. *Eleocharis kamtschatica*. <http://hos0.big.ous.ac.jp/~hoshino/Labo/colorzukan/harizk/kuroha/kuroha.htm>

Eleocharis kamtschatica (C.A. Mey.) Kamarov (G4-S2): Kamtchatka spike rush is coastal and saline marsh species of northern Japan, Kamtchatka, Alaska, B.C. and disjunct to Hudson Bay and the Saint Lawrence River (Fig. 44). This species appears to be rare everywhere (Hultén 1941-1950) and is listed by the AKNHP as G4-S2.

This species is loosely stoloniferous. The culms are tufted and up to 30 cm tall. Spikes are terminal with a large basal scale that completely encircles the base of the spike (Fig. 43). A tubercle nearly the size of the achene and bright purplish-brown stem bases separate *E. kamtschatica* from the more widespread, *E. uniglumis*.

This species has been collected at a range of locations in Alaska, from moist sedge meadows along the Norton Sound coast (near Unalakleet airport), to coastal marshes

in southcentral Alaska (e.g., Kachemak Bay) and southeast Alaska (Haines airport, Katzeihin River delta, and near Ketchikan). Our collection in Dyea was from a similar habitat to most Kamchatka spike rush sites, i.e., a small wet depression in a halophytic sedge meadow.

The reason behind why so few populations are present, despite a wide geographic range is difficult to explain. This is especially true considering that a recent collection by Parker (2001) was from a disturbed site adjacent to the Haines airport. The indication that this species can withstand environmental perturbation is counterintuitive to its rarity and suggests that more effort be placed in elucidating the environmental and/or biotic factors limiting its distribution. One might think that a non-showy species such as this might merely be overlooked and its rarity a function of under-collection. However, floristic inventory work has accelerated in Alaska in the last 30 years and very few additional sites to those outlined in Hultén's 1968 flora are known.



Figure 43. Global range of *Eleocharis kamtschatica* shown as yellow polygons (adapted from Hultén 1968).

***Saxifraga occidentalis* S. Wats. (G5-S1):**

Despite attempts to relocate a population of the regionally rare Western saxifrage (*Saxifraga occidentalis*), we did not observe this species in KLGO. Rector collected this rare Alaskan species along the Taiya River in 1995 (ALA Database 2004). Western saxifrage is a robust plant with a branched inflorescence and leaves longer than broad. The taxon is quite common along seasonally moist drainages from British Columbia south along both sides of the Cascades to Oregon, Idaho, and Nevada. However, only two collections are known from Alaska (Taiya River, KLGO and near Ketchikan).

Recommendations

To achieve a more complete list of species in KLGO, we recommend the following locations and habitats are inventoried (also shown in Fig. 45):

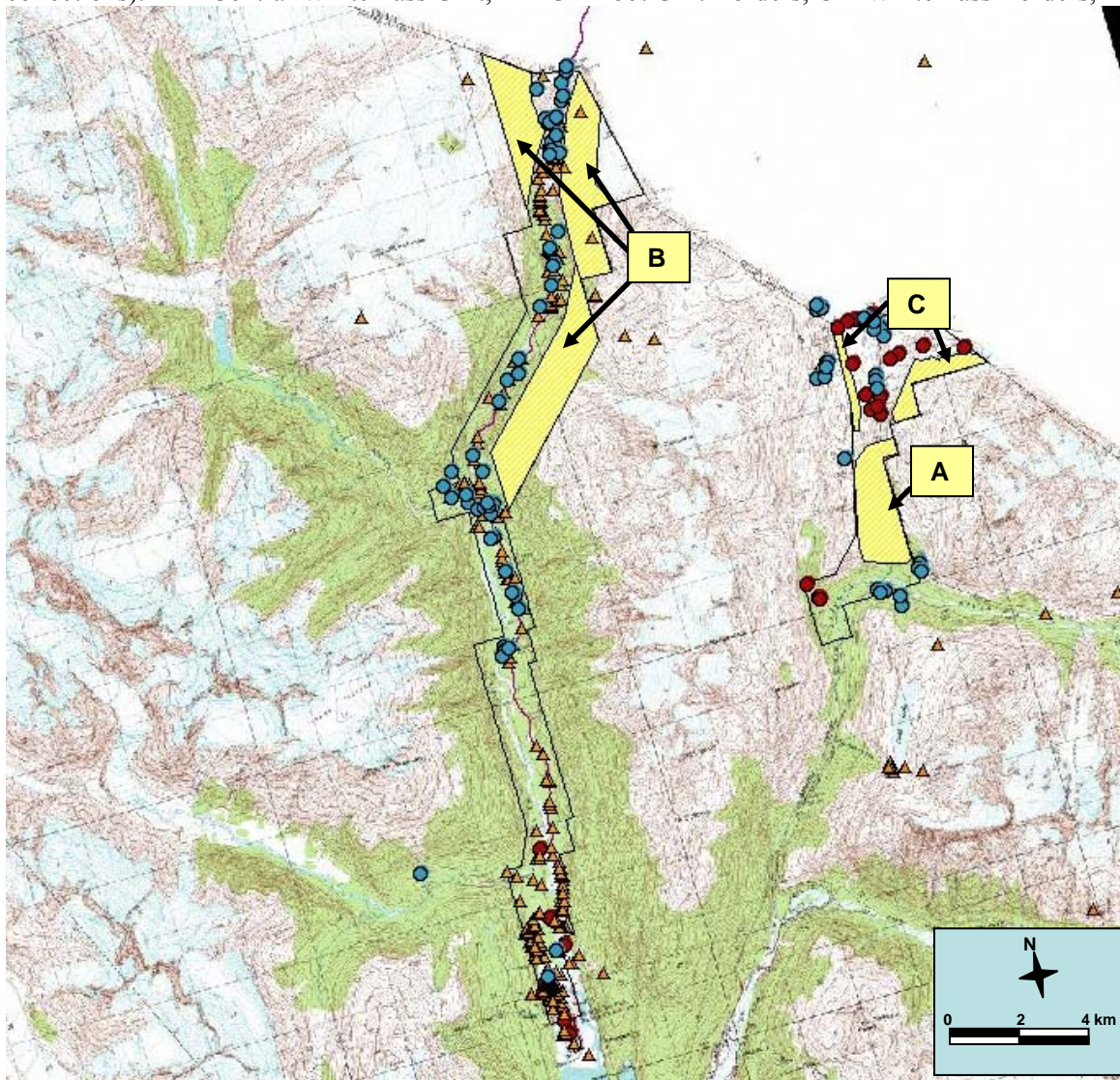
A. Central White Pass Unit around Dead Horse Gulch. This area has not received sufficient attention. The habitat appears to be dominated by alder and menziesia and is not expected to harbor a large diversity of species. However, one or two days of collecting may prove fruitful. Access by train would be required.

B. High elevation areas along the borders of the Chilkoot Unit. Because of the steep, treacherous, and brushy terrain, no collections are known from the margins of the Chilkoot Unit. Habitats and bedrock types do not appear to be different than more heavily inventoried areas of the park, but it is quite possible that a few additional species new to the park are

present. The primary concern for this area is the logistics of access, which would necessitate helicopter use.

C. White Pass Borders. A few collections were made just west of the White Pass Unit that would be new park records if the populations extended into the park. These species included *Dyras octopetala*, *Huperzia selago*, *Ranunculus nivalis*, *Stellaria longipes*, *Kalmia polifolia*, and *Draba stenoloba*. An additional day of directed collecting in this area might capture these taxa. Further, we were unable to access the north-facing slope on the east White Pass Fork. Access by train would be required to reach the east White Pass Fork section.

Figure 44. Suggested future sampling sites in KLGO, shown as labeled yellow polygons. Known plant collection sites are shown as circles (AKNHP 2002, 2003) or triangles (previous collections). A = Central White Pass Unit, B = Chilkoot Unit Borders, C = White Pass Borders,



Recommendations for monitoring or other action:

- Exotic species – We suggest that efforts be made to eliminate the introduced plants at Dyea and along the White Pass Railroad. This includes the species: *Euphrasia nemorosa*, *Leucanthemum vulgare*, *Rheum rhabarbrum*, *Capsella bursa-pastoris*, *Chenopodium album*, and *Galeopsis bifida*. None of these species are known to be aggressive in undisturbed sites; however, weeds that were not problems have been known to become particularly invasive after many years as benign species in novel communities (Cronk and Fuller 2001). Because the weeds seem to be isolated and not of large population sizes, control by spot-applied herbicide (e.g., Roundup®) over a couple of years seems manageable.
- *Phyllodoce empetriformis* – This rare species would benefit from a better understanding of its distribution within KLG0 and knowledge of its population dynamics. We only located one site of relatively few individuals, but it is possible that this taxon is present in other localities in the park, such as the east section of the upper White Pass Unit and high elevations along the border of the Chilkoot Unit. Second, most management decisions of rare plants are made without a good understanding of the biological status of the species (Schemske et al. 1994), and we therefore recommend that explicit stage-specific matrix population modeling be employed. Matrix population models are a powerful tool to identify population growth parameters and the particular stages (or age-classes) most important to population growth (see discussion in Schemske et al. 1994). Additionally, ancillary data on ecology and reproductive ecology can be taken while collecting population data.
- *Eleocharis kamtschatica* – We recommend the same monitoring procedures for this species, located at Dyea. A careful survey and estimation of population sizes in KLG0 is necessary, as well as documenting the biological status of populations within the park.
- *Saxifraga occidentalis* – Effort should be made to relocate the Saintly Hill site along the Taiya River for this rare Alaskan species, since it is only one of two known locations in Alaska

ACKNOWLEDGEMENTS

The AKNHP is grateful for the logistical and financial support of the NPS, and in particular of the I & M and SEAN coordinators, Sara Wesser, Lewis Sharman, Chiska Derr, and KLGO biologist Meg Hahr. Meg Hahr, Amber Bethe, and Stephen Tillotson were invaluable in identification of appropriate collecting sites and general logistical support. They also aided in the collection of numerous species and offered welcomed company in the field.

LITERATURE CITED

- AKNHP (Alaska Natural Heritage Program). 2000. Expected species list. Unpublished report, University of Alaska Anchorage.
- AKNHP Database. 2003. University of Alaska, Alaska Natural Heritage Program, Biological Conservation Database. Anchorage, Alaska.
- ALA Database. 2004. University of Alaska Museum Arctos Database. <http://arctos.database.museum/SpecimenSearch.cfm>
- Batten, A., and G. Juday. 1988. Report of plant collections in the north Lynn Canal region of the Tongass National Forest. Pp. 11.
- Densmore, R.V., P. C. McKee, and C. Roland. 2001. Exotic Plants in Alaskan National Park Units. Report on file with National Park Service, Anchorage, Alaska. Pp. 143.
- Camp, W. H. 1942. A survey of the American species of *Vaccinium*, subgenus *Euvaccinium*. *Brittonia* 4: 205-247.
- Carlson, M. L., K. W. Boggs, and R. Lipkin. 2004. Glacier Bay National Park and Preserve vascular plant inventory: final report. Report on file with the National Park Service Alaska Region and Alaska Natural Heritage Program, Anchorage, Alaska. Pp. 100.
- Cody, W. J. 1996. Flora of the Yukon Territory. NRC Research Press. Ottawa. Pp. 643.
- Cronk, Q. C. B., and J. L. Fuller 2001. Plant Invaders: the Threat to Natural Ecosystems. Earthscan Publishing, Sterling, Virginia.
- Hanson, D. 2000. Biological inventories scoping meeting summary. National Park Service, Alaska Support Office, Anchorage, Alaska.
- Hultén, E. 1941-1950. Flora of Alaska and Yukon. Lunds University, Stockholm, Sweden. 10 Vols.
- Hultén, E. 1968. Flora of Alaska and Neighboring Territories. Stanford University Press, Stanford, California. Pp. 1008.
- MacDonald, G. M., and L. C. Cwynar. 1985. A fossil pollen based reconstruction of the late Quaternary history of lodgepole pine (*Pinus contorta* var. *latifolia*) in the western interior of Canada. *Canadian Journal of Forest Research* 15:1032-1044.
- MacKenzie, K. K. 1940. North American *Cariceae*. H. W. Rickett (ed.) New York Botanic Garden, New York.
- Malm, M. 1996-1997. A guide to the identification and interpretation of the plants of Klondike Gold Rush National Historical Park and environs. Pp. 364.
- Mann, D. H. 1986. Wisconsin and Holocene glaciation of Southeast Alaska. P. 237-265 in T.D. Hamilton, K.M. Reed, and R. M. Thorson (eds.), *Glaciation in Alaska: the geologic record*. Alaska Geological Society, Anchorage, Alaska.
- Meidinger, D. 1999. Ericaceae. In G. W. Douglas, D. Meidinger, and J. Pojar (eds.) *Illustrated Flora of British Columbia*. Vol. 3. B.C. Ministry of Environment, Lands and Parks. Victoria, B.C.

- Murray, D. F., and C. L. Parker. 1990. An Introduction to plant collecting. University of Alaska Museum on-line report. uaf.edu/museum/herb/howtocoll.html.
- Nilsson, Ö. 1995. Nordisk Fjellflora (Nordic Alpine Flora). Cappelens Forlag, Spydeberg, Sweden. Pp 272.
- Parker, C. L. 2001. Vascular plant inventory of selected sites Haines and vicinity, southeastern Alaska. Report on file with the Bureau of Land Management-Anchorage Field Office, Anchorage, Alaska. Pp. 48.
- Parker, C. L., and D. F. Murray. 1992. Collecting voucher specimens for documentation. Unpublished report prepared from the Alaska Rare Plant Working Group. University of Alaska Fairbanks.
- Paustian, S. J., S. J. Trull, R. A. Foster, N. D. Atwood, B. J. Kriekhaus, and J. R. Rickers. 1994. Ecological inventory of Klondike Gold Rush National Historical Park and adjacent national forest lands.
- Pielou, E. C. 1992. After the ice age: the return of life to glaciated North America. University of Chicago Press. Chicago. Pp 399.
- Pojar, J. and A. MacKinnon. 1994. Plants of the Pacific Northwest Coast: Washington, Oregon, British Columbia, and Alaska. Lone Pine Publishing, Redmond, Washington. Pp. 527.
- Preston, C. D., M. G. Telfer, H. R. Arnold, P. D. Carey, J. M. Cooper, T. D. Dines, M. O. Hill, D. A. Pearman, D. B. Roy, S. M. Smart. 2002. The changing flora of the UK. London: DEFRA. Pp. 36.
- Rector, C. 1995. Natural resource field season report: Klondike Gold Rush National Historical Park, Skagway, Alaska.
- Schemske, D. W., B. C. Husband, M. H. Ruckelhaus, C. Goodwillie, I. Parker, and J. G. Bishop. 1994. Evaluating approaches to the conservation of rare and endangered plants. *Ecology* 75: 584-606.
- Sharman, L., J. Piatt, E. Furbish, J. Williams. 2000. A Study plant to inventory vascular plants and vertebrates: Southeast Alaska Network, National Park Service. Pp. 75.
- Szczawinski, A.F. 1962. The heather family of British Columbia. B. C. Provincial Museum. Handbook No. 19. 208 p.
- Tande, G. F., and R. Lipkin. 2003. Wetland Sedges of Alaska. Report on file with the Alaska Natural Heritage Program. Pp. 138.
- Toivonen, H. 2002. *Carex* Linnaeus sect. *Glareosae*. In *Flora of North America*, Volume 23: Magnoliophyta: Commelinidae: Cyperaceae. Oxford University Press, New York. Pp 608.
- USDA, NRCS. 2003. The PLANTS Database, Version 3.5 (<http://plants.usda.gov>). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

APPENDIX I

National Park Service 2001 Status of Vascular Plants Expected or Documented in Klondike Gold Rush National Historical Park –

Family	Previous Name	ITIS Name	2001 HPS Status	Post 2003 HPS Status
Pinaceae	<i>Abies lasiocarpa</i>	<i>Abies lasiocarpa</i>	present	present
Aceraceae	<i>Acer glabrum</i> ssp. <i>douglasii</i>	<i>Acer glabrum</i> var. <i>douglasii</i>	present	present
Asteraceae	<i>Achillea millefolium</i>	<i>Achillea millefolium</i> var. <i>millefolium</i>	present	present
Asteraceae	<i>Achillea millefolium</i> var. <i>borealis</i>	<i>Achillea millefolium</i> var. <i>borealis</i>	present	present
Ranunculaceae	<i>Aconitum delphinifolium</i> ssp. <i>chamissonianum</i>	<i>Aconitum delphinifolium</i> ssp. <i>chamissonianum</i>	present	present
Ranunculaceae	<i>Actaea rubra</i>	<i>Actaea rubra</i>	present	present
Poaceae	<i>Agrostis borealis</i>	<i>Agrostis mertensii</i>	present	present
Poaceae	<i>Agrostis exarata</i>	<i>Agrostis exarata</i>	present	present
Poaceae	<i>Agrostis stolonifera</i>	<i>Agrostis stolonifera</i>	present	present
Poaceae	<i>Agrostis tenuis</i>	<i>Agrostis capillaris</i>	present	present
Betulaceae	<i>Alnus incana</i> ssp. <i>tenuifolia</i>	<i>Alnus incana</i> ssp. <i>tenuifolia</i>	present	present
Betulaceae	<i>Alnus rubra</i>	<i>Alnus rubra</i>	present	present
Betulaceae	<i>Alnus viridis</i> ssp. <i>sinuata</i>	<i>Alnus viridis</i> ssp. <i>sinuata</i>	present	present
Rosaceae	<i>Amelanchier alnifolia</i> var. <i>semiintegrifolia</i>	<i>Amelanchier alnifolia</i> var. <i>semiintegrifolia</i>	present	present
Ranunculaceae	<i>Anemone richardsonii</i>	<i>Anemone richardsonii</i>	present	present
Apiaceae	<i>Angelica lucida</i>	<i>Angelica lucida</i>	present	present
Asteraceae	<i>Antennaria alpina</i>	<i>Antennaria alpina</i>	present	present
Asteraceae	<i>Antennaria megacephala</i>	<i>Antennaria monocephala</i> ssp. <i>angustata</i>	present	present
Asteraceae	<i>Antennaria monocephala</i> ssp. <i>monocephala</i>	<i>Antennaria monocephala</i> ssp. <i>monocephala</i>	present	present
Asteraceae	<i>Antennaria rosea</i>	<i>Antennaria rosea</i> (presum. ssp. <i>rosea</i>)	present	present
Ranunculaceae	<i>Aquilegia formosa</i>	<i>Aquilegia formosa</i>	present	present
Brassicaceae	<i>Arabis hirsuta</i>	<i>Arabis hirsuta</i>	present	present
Brassicaceae	<i>Arabis lyrata</i> ssp. <i>kamchatica</i>	<i>Arabis kamchatica</i>	present	present
Viscaceae	<i>Arceuthobium tsugense</i>	<i>Arceuthobium tsugense</i>	present	present
Poaceae	<i>Arctagrostis poaeoides</i>	<i>Arctagrostis latifolia</i> ssp. <i>arundinacea</i>	present	present
Ericaceae	<i>Arctostaphylos alpina</i> ssp. <i>rubra</i>	<i>Arctostaphylos rubra</i>	present	present
Ericaceae	<i>Arctostaphylos uva-ursi</i>	<i>Arctostaphylos uva-ursi</i>	present	present
Rosaceae	<i>Argentina egedii</i>	<i>Argentina egedii</i> (presum ssp. <i>egedii</i>)	present	present
Asteraceae	<i>Arnica amplexicaulis</i>	<i>Arnica amplexicaulis</i>	present	present
Asteraceae	<i>Arnica latifolia</i>	<i>Arnica latifolia</i>	present	present
Asteraceae	<i>Arnica lessingii</i>	<i>Arnica lessingii</i>	present	present
Asteraceae	<i>Artemisia norvegica</i> ssp. <i>saxatilis</i>	<i>Artemisia arctica</i> ssp. <i>arctica</i>	present	present
Asteraceae	<i>Artemisia tilesii</i> ssp. <i>elatior</i>	<i>Artemisia tilesii</i> ssp. <i>elatior</i>	present	present
Rosaceae	<i>Aruncus dioicus</i> var. <i>vulgaris</i>	<i>Aruncus dioicus</i> var. <i>vulgaris</i>	present	present
Fabaceae	<i>Astragalus alpinus</i>	<i>Astragalus alpinus</i>	present	present
Dryopteridaceae	<i>Athyrium filix-femina</i> ssp. <i>cyclosorum</i>	<i>Athyrium filix-femina</i> ssp. <i>cyclosorum</i>	present	present
Chenopodiaceae	<i>Atriplex gmelinii</i>	<i>Atriplex gmelinii</i>	present	present
Brassicaceae	<i>Barbarea orthoceras</i>	<i>Barbarea orthoceras</i>	present	present
Betulaceae	<i>Betula glandulosa</i> x <i>nana</i> <i>exilis</i>	<i>Betula glandulosa</i> x <i>nana</i> <i>exilis</i>	present	present
Betulaceae	<i>Betula nana</i>	<i>Betula nana</i>	present	present
Betulaceae	<i>Betula papyrifera</i> var. <i>commutata</i>	<i>Betula papyrifera</i> var. <i>commutata</i>	present	present
Orobanchaceae	<i>Boschniakia rossica</i>	<i>Boschniakia rossica</i>	present	present
Ophioglossaceae	<i>Botrychium lanceolatum</i>	<i>Botrychium lanceolatum</i>	present	present
Ophioglossaceae	<i>Botrychium virginianum</i>	<i>Botrychium virginianum</i>	present	present
Poaceae	<i>Calamagrostis canadensis</i>	<i>Calamagrostis canadensis</i> (likely var. <i>langsfordii</i>)	present	present
Poaceae	<i>Calamagrostis lapponica</i>	<i>Calamagrostis lapponica</i>	present	present
Poaceae	<i>Calamagrostis purpurascens</i>	<i>Calamagrostis purpurascens</i>	present	present
Ranunculaceae	<i>Caltha leptosepala</i>	<i>Caltha leptosepala</i>	present	present
Ranunculaceae	<i>Caltha palustris</i>	<i>Caltha palustris</i>	present	present
Campanulaceae	<i>Campanula lasiocarpa</i>	<i>Campanula lasiocarpa</i>	present	present
Campanulaceae	<i>Campanula rotundifolia</i>	<i>Campanula rotundifolia</i>	present	present
Brassicaceae	<i>Cardamine bellidifolia</i>	<i>Cardamine bellidifolia</i>	present	present
Brassicaceae	<i>Cardamine pensylvanica</i>	<i>Cardamine pensylvanica</i>	present	present
Brassicaceae	<i>Cardamine umbellata</i>	<i>Cardamine oligosperma</i> var. <i>kamtschatica</i>	present	present
Cyperaceae	<i>Carex aquatilis</i>	<i>Carex aquatilis</i> var. <i>aquatilis</i>	present	present
Cyperaceae	<i>Carex brunnescens</i>	<i>Carex brunnescens</i>	present	present
Cyperaceae	<i>Carex canescens</i>	<i>Carex canescens</i>	present	present
Cyperaceae	<i>Carex crawfordii</i>	<i>Carex crawfordii</i>	present	present
Cyperaceae	<i>Carex disperma</i>	<i>Carex disperma</i>	present	present
Cyperaceae	<i>Carex gmelinii</i>	<i>Carex gmelinii</i>	present	present
Cyperaceae	<i>Carex laeviculmis</i>	<i>Carex laeviculmis</i>	present	present
Cyperaceae	<i>Carex lenticularis</i>	<i>Carex lenticularis</i> (could be var. <i>limnophila</i> , <i>lipoc</i>)	present	present
Cyperaceae	<i>Carex lenticularis</i> var. <i>lipocarpa</i>	<i>Carex lenticularis</i> var. <i>lipocarpa</i>	present	present
Cyperaceae	<i>Carex lyngbyei</i>	<i>Carex lyngbyei</i>	present	present
Cyperaceae	<i>Carex macloviana</i>	<i>Carex macloviana</i>	present	present
Cyperaceae	<i>Carex magellanica</i>	<i>Carex magellanica</i>	present	present
Cyperaceae	<i>Carex mertensii</i>	<i>Carex mertensii</i>	present	present
Cyperaceae	<i>Carex misandra</i>	<i>Carex misandra</i>	present	present
Cyperaceae	<i>Carex nigricans</i>	<i>Carex nigricans</i>	present	present

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

National Park Service 2001 Status of Vascular Plants Expected or Documented in Klondike Gold Rush National Historical Park (cont.) –

Family	Previous Name	ITIS Name	2001 IIPS Status	2001 IIPS Status
Cyperaceae	<i>Carex pauciflora</i>	<i>Carex pauciflora</i>	present	present
Cyperaceae	<i>Carex pluriflora</i>	<i>Carex pluriflora</i>	present	present
Cyperaceae	<i>Carex pyrenaica ssp. micropoda</i>	<i>Carex pyrenaica ssp. micropoda</i>	present	present
Cyperaceae	<i>Carex saxatilis</i>	<i>Carex saxatilis</i>	present	present
Cyperaceae	<i>Carex scirpoidea</i>	<i>Carex scirpoidea</i>	present	present
Cyperaceae	<i>Carex sitchensis</i>	<i>Carex aquatilis var. dives</i>	present	present
Ericaceae	<i>Cassiope mertensiana</i>	<i>Cassiope mertensiana</i>	present	present
Ericaceae	<i>Cassiope stelleriana</i>	<i>Harrimanella stelleriana</i>	present	present
Scrophulariaceae	<i>Castilleja unalaschcensis</i>	<i>Castilleja unalaschcensis</i>	present	present
Caryophyllaceae	<i>Cerastium fontanum</i>	<i>Cerastium fontanum ssp. vulgare</i>	present	present
Chenopodiaceae	<i>Chenopodium album</i>	<i>Chenopodium album</i>	present	present
Chenopodiaceae	<i>Chenopodium capitatum</i>	<i>Chenopodium capitatum</i>	present	present
Pyrolaceae	<i>Chimaphila umbellata</i>	<i>Chimaphila umbellata</i>	present	present
Asteraceae	<i>Chrysanthemum arcticum</i>	<i>Dendranthema arcticum ssp. arcticum</i>	present	present
Apiaceae	<i>Cicuta douglasii</i>	<i>Cicuta douglasii</i>	present	present
Poaceae	<i>Cinna latifolia</i>	<i>Cinna latifolia</i>	present	present
Onagraceae	<i>Circaea alpina</i>	<i>Circaea alpina</i>	present	present
Portulacaceae	<i>Claytonia sibirica</i>	<i>Claytonia sibirica</i>	present	present
Rosaceae	<i>Comarum palustre</i>	<i>Comarum palustre</i>	present	present
Apiaceae	<i>Conioselinum chinense</i>	<i>Conioselinum chinense</i>	present	present
Ranunculaceae	<i>Coptis trifolia</i>	<i>Coptis trifolia</i>	present	present
Orchidaceae	<i>Corallorrhiza trifida</i>	<i>Corallorrhiza trifida</i>	present	present
Cornaceae	<i>Cornus canadensis</i>	<i>Cornus canadensis</i>	present	present
Cornaceae	<i>Cornus sericea ssp. sericea</i>	<i>Cornus sericea ssp. sericea</i>	present	present
Cornaceae	<i>Cornus suecica</i>	<i>Cornus suecica</i>	present	present
Pteridaceae	<i>Cryptogramma acrostichoides</i>	<i>Cryptogramma acrostichoides</i>	present	present
Pteridaceae	<i>Cryptogramma sitchensis</i>	<i>Cryptogramma sitchensis</i>	present	present
Dryopteridaceae	<i>Cystopteris fragilis</i>	<i>Cystopteris fragilis</i>	present	present
Poaceae	<i>Deschampsia cespitosa</i>	<i>Deschampsia caespitosa</i>	present	present
Diapensiaceae	<i>Diapensia lapponica ssp. obovata</i>	<i>Diapensia lapponica var. obovata</i>	present	present
Lycopodiaceae	<i>Diphasiastrum alpinum</i>	<i>Lycopodium alpinum</i>	present	present
Lycopodiaceae	<i>Diphasiastrum complanatum</i>	<i>Lycopodium complanatum</i>	present	present
Lycopodiaceae	<i>Diphasiastrum sitchense</i>	<i>Lycopodium sitchense</i>	present	present
Primulaceae	<i>Dodecatheon pulchellum ssp. alaskanum</i>	<i>Dodecatheon pulchellum ssp. macrocarpum</i>	present	present
Rosaceae	<i>Dryas integrifolia</i>	<i>Dryas integrifolia (ssp. integrifolia or sylvatica?)</i>	present	present
Dryopteridaceae	<i>Dryopteris expansa</i>	<i>Dryopteris expansa</i>	present	present
Cyperaceae	<i>Eleocharis uniglumis</i>	<i>Eleocharis uniglumis</i>	present	present
Poaceae	<i>Elymus glaucus</i>	<i>Elymus glaucus (potentially ssp. virescens)</i>	present	present
Poaceae	<i>Elymus glaucus ssp. glaucus</i>	<i>Elymus glaucus ssp. glaucus</i>	present	present
Poaceae	<i>Elymus trachycaulus</i>	<i>Elymus trachycaulus (ssp. trachycaulus or subse)</i>	present	present
Empetraceae	<i>Empetrum nigrum</i>	<i>Empetrum nigrum (ssp. nigrum or hermaphroditum)</i>	present	present
Onagraceae	<i>Epilobium anagallidifolium</i>	<i>Epilobium anagallidifolium</i>	present	present
Onagraceae	<i>Epilobium angustifolium</i>	<i>Chamerion angustifolium ssp. angustifolium</i>	present	present
Onagraceae	<i>Epilobium glandulosum</i>	<i>Epilobium ciliatum ssp. glandulosum</i>	present	present
Onagraceae	<i>Epilobium hornemannii ssp. hornemannii</i>	<i>Epilobium hornemannii ssp. hornemannii</i>	present	present
Onagraceae	<i>Epilobium latifolium</i>	<i>Chamerion latifolium</i>	present	present
Equisetaceae	<i>Equisetum arvense</i>	<i>Equisetum arvense</i>	present	present
Equisetaceae	<i>Equisetum fluviatile</i>	<i>Equisetum fluviatile</i>	present	present
Equisetaceae	<i>Equisetum pratense</i>	<i>Equisetum pratense</i>	present	present
Equisetaceae	<i>Equisetum variegatum</i>	<i>Equisetum variegatum (possibly var. variegatum?)</i>	present	present
Equisetaceae	<i>Equisetum variegatum ssp. alaskanum</i>	<i>Equisetum variegatum var. alaskanum</i>	present	present
Asteraceae	<i>Erigeron acris var. asteroides</i>	<i>Erigeron acris ssp. politus</i>	present	present
Asteraceae	<i>Erigeron humilis</i>	<i>Erigeron humilis</i>	present	present
Asteraceae	<i>Erigeron peregrinus</i>	<i>Erigeron peregrinus</i>	present	present
Cyperaceae	<i>Eriophorum angustifolium ssp. scabriusculum</i>	<i>Eriophorum angustifolium ssp. scabriusculum</i>	present	present
Cyperaceae	<i>Eriophorum polystachion</i>	<i>Eriophorum angustifolium ssp. subarcticum</i>	present	present
Cyperaceae	<i>Eriophorum scheuchzeri</i>	<i>Eriophorum scheuchzeri</i>	present	present
Poaceae	<i>Festuca altaica</i>	<i>Festuca altaica</i>	present	present
Poaceae	<i>Festuca brachyphylla</i>	<i>Festuca brachyphylla</i>	present	present
Poaceae	<i>Festuca rubra</i>	<i>Festuca rubra</i>	present	present
Rubiaceae	<i>Galium trifidum</i>	<i>Galium trifidum (potentially ssp. trifidum??)</i>	present	present
Rubiaceae	<i>Galium trifidum ssp. columbianum</i>	<i>Galium trifidum ssp. columbianum</i>	present	present
Rubiaceae	<i>Galium triflorum</i>	<i>Galium triflorum</i>	present	present
Gentianaceae	<i>Gentiana amarella</i>	<i>Gentiana amarella ssp. acuta</i>	present	present
Santalaceae	<i>Geocaulon lividum</i>	<i>Geocaulon lividum</i>	present	present
Geraniaceae	<i>Geranium erianthum</i>	<i>Geranium erianthum</i>	present	present
Rosaceae	<i>Geum calthifolium</i>	<i>Geum calthifolium</i>	present	present
Rosaceae	<i>Geum macrophyllum ssp. macrophyllum</i>	<i>Geum macrophyllum var. macrophyllum</i>	present	present
Primulaceae	<i>Glaux maritima</i>	<i>Glaux maritima</i>	present	present
Poaceae	<i>Glyceria striata</i>	<i>Glyceria striata</i>	present	present
Dryopteridaceae	<i>Gymnocarpium dryopteris</i>	<i>Gymnocarpium dryopteris</i>	present	present
Apiaceae	<i>Heracleum lanatum</i>	<i>Heracleum lanatum</i>	present	present
Saxifragaceae	<i>Heuchera glabra</i>	<i>Heuchera glabra</i>	present	present
Asteraceae	<i>Hieracium albiflorum</i>	<i>Hieracium albiflorum</i>	present	present
Asteraceae	<i>Hieracium gracile</i>	<i>Hieracium gracile</i>	present	present
Asteraceae	<i>Hieracium triste var. triforme</i>	<i>Hieracium triste var. triste</i>	present	present
Poaceae	<i>Hierochloa alpina</i>	<i>Hierochloa alpina</i>	present	present
Poaceae	<i>Hierochloa odorata</i>	<i>Hierochloa odorata</i>	present	present
Hippuridaceae	<i>Hippuris vulgaris</i>	<i>Hippuris vulgaris</i>	present	present
Caryophyllaceae	<i>Honckenya peplodes ssp. major</i>	<i>Honckenya peplodes ssp. major</i>	present	present
Caryophyllaceae	<i>Honckenya peplodes ssp. peplodes</i>	<i>Honckenya peplodes ssp. peplodes</i>	present	present
Poaceae	<i>Hordeum brachyantherum</i>	<i>Hordeum brachyantherum</i>	present	present
Poaceae	<i>Hordeum jubatum</i>	<i>Hordeum jubatum</i>	present	present
Lycopodiaceae	<i>Huperzia haleakalae</i>	<i>Huperzia haleakalae</i>	present	present
Juncaceae	<i>Juncus alpinus</i>	<i>Juncus alpinoarticulatus ssp. nodulosus</i>	present	present
Juncaceae	<i>Juncus arcticus ssp. sitchensis</i>	<i>Juncus haenkei</i>	present	present
Juncaceae	<i>Juncus balticus</i>	<i>Juncus balticus</i>	present	present
Juncaceae	<i>Juncus biglumis</i>	<i>Juncus biglumis</i>	present	present

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

National Park Service 2001 Status of Vascular Plants Expected or Documented in Klondike Gold Rush National Historical Park (cont.) –

Family	Previous Name	ITIS Name	2001 NPS Status	2001 NPS Status
Juncaceae	<i>Juncus bufonius</i>	<i>Juncus bufonius</i>	present	present
Juncaceae	<i>Juncus drummondii</i>	<i>Juncus drummondii</i>	present	present
Juncaceae	<i>Juncus mertensianus</i>	<i>Juncus mertensianus</i>	present	present
Ericaceae	<i>Kalmia microphylla</i>	<i>Kalmia microphylla</i>	present	present
Fabaceae	<i>Lathyrus japonicus</i> var. <i>maritimus</i>	<i>Lathyrus japonicus</i> var. <i>maritimus</i>	present	present
Ericaceae	<i>Ledum groenlandicum</i>	<i>Ledum groenlandicum</i>	present	present
Ericaceae	<i>Ledum palustre</i> ssp. <i>decumbens</i>	<i>Ledum palustre</i> ssp. <i>decumbens</i>	present	present
Saxifragaceae	<i>Leptarrhena pyrolifolia</i>	<i>Leptarrhena pyrolifolia</i>	present	present
Asteraceae	<i>Leucanthemum vulgare</i>	<i>Leucanthemum vulgare</i>	present	present
Poaceae	<i>Leymus mollis</i> ssp. <i>mollis</i>	<i>Leymus mollis</i> ssp. <i>mollis</i>	present	present
Apiaceae	<i>Ligusticum hultenii</i>	<i>Ligusticum scoticum</i> ssp. <i>hultenii</i>	present	present
Caprifoliaceae	<i>Linnaea borealis</i>	<i>Linnaea borealis</i> (potentially ssp. <i>longiflora</i> ?)	present	present
Caprifoliaceae	<i>Linnaea borealis</i> ssp. <i>americana</i>	<i>Linnaea borealis</i> ssp. <i>americana</i>	present	present
Orchidaceae	<i>Listera cordata</i>	<i>Listera cordata</i>	present	present
Liliaceae	<i>Lloydia serotina</i>	<i>Lloydia serotina</i>	present	present
Ericaceae	<i>Loiseleuria procumbens</i>	<i>Loiseleuria procumbens</i>	present	present
Gentianaceae	<i>Lomatogonium rotatum</i>	<i>Lomatogonium rotatum</i>	present	present
Rosaceae	<i>Luetkea pectinata</i>	<i>Luetkea pectinata</i>	present	present
Fabaceae	<i>Lupinus nootkatensis</i>	<i>Lupinus nootkatensis</i>	present	present
Juncaceae	<i>Luzula parviflora</i>	<i>Luzula parviflora</i>	present	present
Juncaceae	<i>Luzula rufescens</i>	<i>Luzula rufescens</i>	present	present
Juncaceae	<i>Luzula spicata</i>	<i>Luzula spicata</i>	present	present
Juncaceae	<i>Luzula wahlenbergii</i>	<i>Luzula wahlenbergii</i>	present	present
Lycopodiaceae	<i>Lycopodium annotinum</i>	<i>Lycopodium annotinum</i>	present	present
Lycopodiaceae	<i>Lycopodium clavatum</i>	<i>Lycopodium clavatum</i>	present	present
Lycopodiaceae	<i>Lycopodium selago</i>	<i>Huperzia selago</i> var. <i>selago</i>	present	present
Asteraceae	<i>Matricaria matricarioides</i>	<i>Matricaria discoidea</i>	present	present
Menyanthaceae	<i>Menyanthes trifoliata</i>	<i>Menyanthes trifoliata</i>	present	present
Ericaceae	<i>Menziesia ferruginea</i>	<i>Menziesia ferruginea</i>	present	present
Boraginaceae	<i>Mertensia maritima</i> var. <i>maritima</i>	<i>Mertensia maritima</i> var. <i>maritima</i>	present	present
Boraginaceae	<i>Mertensia paniculata</i>	<i>Mertensia paniculata</i> (pres var. <i>paniculata</i>)	present	present
Saxifragaceae	<i>Mitella pentandra</i>	<i>Mitella pentandra</i>	present	present
Caryophyllaceae	<i>Moehringia lateriflora</i>	<i>Moehringia lateriflora</i>	present	present
Pyrolaceae	<i>Moneses uniflora</i>	<i>Moneses uniflora</i>	present	present
Monotropaceae	<i>Monotropa hypopithys</i>	<i>Monotropa hypopithys</i>	present	present
Myricaceae	<i>Myrica gale</i>	<i>Myrica gale</i>	present	present
Nymphaeaceae	<i>Nuphar lutea</i> ssp. <i>polysepala</i>	<i>Nuphar lutea</i> ssp. <i>polysepala</i>	present	present
Araliaceae	<i>Oplopanax horridus</i>	<i>Oplopanax horridus</i>	present	present
Pyrolaceae	<i>Orthilia secunda</i>	<i>Orthilia secunda</i>	present	present
Apiaceae	<i>Osmorhiza berteroi</i>	<i>Osmorhiza berteroi</i>	present	present
Polygonaceae	<i>Oxyria digyna</i>	<i>Oxyria digyna</i>	present	present
Fabaceae	<i>Oxytropis campestris</i> var. <i>varians</i>	<i>Oxytropis campestris</i> var. <i>varians</i>	present	present
Saxifragaceae	<i>Parnassia fimbriata</i>	<i>Parnassia fimbriata</i>	present	present
Saxifragaceae	<i>Parnassia palustris</i>	<i>Parnassia palustris</i>	present	present
Rosaceae	<i>Pentaphylloides floribunda</i>	<i>Pentaphylloides floribunda</i>	present	present
Asteraceae	<i>Petasites frigidus</i> var. <i>ivalis</i>	<i>Petasites frigidus</i> var. <i>ivalis</i>	present	present
Poaceae	<i>Phalaris arundinacea</i>	<i>Phalaris arundinacea</i>	present	present
Poaceae	<i>Phleum alpinum</i>	<i>Phleum alpinum</i>	present	present
Ericaceae	<i>Phyllodoce glanduliflora</i>	<i>Phyllodoce glanduliflora</i>	present	present
Pinaceae	<i>Picea sitchensis</i>	<i>Picea sitchensis</i>	present	present
Pinaceae	<i>Pinus contorta</i>	<i>Pinus contorta</i>	present	present
Boraginaceae	<i>Plagiobothrys cognatus</i>	<i>Plagiobothrys scouleri</i> var. <i>hispidulus</i>	present	present
Plantaginaceae	<i>Plantago major</i> var. <i>major</i>	<i>Plantago major</i> var. <i>major</i>	present	present
Plantaginaceae	<i>Plantago maritima</i>	<i>Plantago maritima</i> var. <i>juncoides</i>	present	present
Orchidaceae	<i>Platanthera dilatata</i>	<i>Platanthera dilatata</i>	present	present
Orchidaceae	<i>Platanthera hyperborea</i> var. <i>hyperborea</i>	<i>Platanthera hyperborea</i> var. <i>hyperborea</i>	present	present
Orchidaceae	<i>Platanthera obtusata</i>	<i>Platanthera obtusata</i>	present	present
Orchidaceae	<i>Platanthera saccata</i>	<i>Platanthera stricta</i>	present	present
Poaceae	<i>Poa alpina</i>	<i>Poa alpina</i>	present	present
Poaceae	<i>Poa annua</i>	<i>Poa annua</i>	present	present
Poaceae	<i>Poa canbyi</i>	<i>Poa secunda</i>	present	present
Poaceae	<i>Poa emimens</i>	<i>Poa emimens</i>	present	present
Poaceae	<i>Poa hispidula</i>	<i>Poa macrocalyx</i>	present	present
Poaceae	<i>Poa leptocoma</i>	<i>Poa leptocoma</i>	present	present
Poaceae	<i>Poa paucispicula</i>	<i>Poa paucispicula</i>	present	present
Poaceae	<i>Poa pseudoabbreviata</i>	<i>Poa pseudoabbreviata</i>	present	present
Poaceae	<i>Poa stenantha</i>	<i>Poa stenantha</i>	present	present
Polemoniaceae	<i>Polemonium pulcherrimum</i>	<i>Polemonium pulcherrimum</i> ssp. <i>lindleyi</i>	present	present
Polygonaceae	<i>Polygonum aviculare</i>	<i>Polygonum aviculare</i>	present	present
Polygonaceae	<i>Polygonum viviparum</i>	<i>Polygonum viviparum</i>	present	present
Polypodiaceae	<i>Polypodium glycyrrhiza</i>	<i>Polypodium glycyrrhiza</i>	present	present
Dryopteridaceae	<i>Polystichum lonchitis</i>	<i>Polystichum lonchitis</i>	present	present
Salicaceae	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i>	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i>	present	present
Potamogetonaceae	<i>Potamogeton gramineus</i>	<i>Potamogeton gramineus</i>	present	present
Rosaceae	<i>Potentilla nana</i>	<i>Potentilla nana</i>	present	present
Rosaceae	<i>Potentilla vahliana</i>	<i>Potentilla vahliana</i>	present	present
Rosaceae	<i>Potentilla villosa</i>	<i>Potentilla villosa</i>	present	present
Asteraceae	<i>Prenanthes alata</i>	<i>Prenanthes alata</i>	present	present

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

National Park Service 2001 Status of Vascular Plants Expected or Documented in Klondike Gold Rush National Historical Park (cont.) –

Family	Previous Name	ITIS Name	2001 IIPS Status	2001 IIPS Status
Primulaceae	<i>Primula cuneifolia</i> var. <i>saxifragifolia</i>	<i>Primula cuneifolia</i> ssp. <i>saxifragifolia</i>	present	present
Poaceae	<i>Puccinellia nutkaensis</i>	<i>Puccinellia nutkaensis</i>	present	present
Pyrolaceae	<i>Pyrola asarifolia</i>	<i>Pyrola asarifolia</i> ssp. <i>asarifolia</i>	present	present
Pyrolaceae	<i>Pyrola chlorantha</i>	<i>Pyrola chlorantha</i>	present	present
Pyrolaceae	<i>Pyrola minor</i>	<i>Pyrola minor</i>	present	present
Ranunculaceae	<i>Ranunculus acris</i>	<i>Ranunculus acris</i>	present	present
Ranunculaceae	<i>Ranunculus cooleyae</i>	<i>Kumlienia cooleyae</i>	present	present
Ranunculaceae	<i>Ranunculus eschscholtzii</i>	<i>Ranunculus eschscholtzii</i>	present	present
Scrophulariaceae	<i>Rhinanthus minor</i> ssp. <i>groenlandicus</i>	<i>Rhinanthus minor</i> ssp. <i>groenlandicus</i>	present	present
Grossulariaceae	<i>Ribes lacustre</i>	<i>Ribes lacustre</i>	present	present
Grossulariaceae	<i>Ribes laxiflorum</i>	<i>Ribes laxiflorum</i>	present	present
Grossulariaceae	<i>Ribes triste</i>	<i>Ribes triste</i>	present	present
Hydrophyllaceae	<i>Romanzoffia sitchensis</i>	<i>Romanzoffia sitchensis</i>	present	present
Brassicaceae	<i>Rorippa palustris</i>	<i>Rorippa palustris</i> (potentially ssp. <i>occidentalis</i> ?)	present	present
Rosaceae	<i>Rosa acicularis</i>	<i>Rosa acicularis</i>	present	present
Rosaceae	<i>Rosa nutkana</i>	<i>Rosa nutkana</i>	present	present
Rosaceae	<i>Rubus arcticus</i>	<i>Rubus arcticus</i> (likely ssp. <i>stellatus</i>)	present	present
Rosaceae	<i>Rubus chamaemorus</i>	<i>Rubus chamaemorus</i>	present	present
Rosaceae	<i>Rubus idaeus</i>	<i>Rubus idaeus</i>	present	present
Rosaceae	<i>Rubus pedatus</i>	<i>Rubus pedatus</i>	present	present
Rosaceae	<i>Rubus spectabilis</i>	<i>Rubus spectabilis</i>	present	present
Polygonaceae	<i>Rumex acetosella</i>	<i>Rumex acetosella</i>	present	present
Polygonaceae	<i>Rumex fenestratus</i>	<i>Rumex aquaticus</i> var. <i>fenestratus</i>	present	present
Caryophyllaceae	<i>Sagina saginoides</i>	<i>Sagina saginoides</i>	present	present
Salicaceae	<i>Salix alaxensis</i> var. <i>longistylis</i>	<i>Salix alaxensis</i> var. <i>longistylis</i>	present	present
Salicaceae	<i>Salix arctica</i>	<i>Salix arctica</i>	present	present
Salicaceae	<i>Salix barclayi</i>	<i>Salix barclayi</i>	present	present
Salicaceae	<i>Salix barclayi</i> x <i>crassijulis</i>	<i>Salix barclayi</i> x <i>crassijulis</i>	present	present
Salicaceae	<i>Salix bebbiana</i>	<i>Salix bebbiana</i>	present	present
Salicaceae	<i>Salix commutata</i>	<i>Salix commutata</i>	present	present
Salicaceae	<i>Salix glauca</i>	<i>Salix glauca</i>	present	present
Salicaceae	<i>Salix ovalifolia</i>	<i>Salix ovalifolia</i>	present	present
Salicaceae	<i>Salix phlebophylla</i>	<i>Salix phlebophylla</i>	present	present
Salicaceae	<i>Salix planifolia</i> ssp. <i>pulchra</i>	<i>Salix pulchra</i>	present	present
Salicaceae	<i>Salix polaris</i>	<i>Salix polaris</i>	present	present
Salicaceae	<i>Salix reticulata</i> ssp. <i>reticulata</i>	<i>Salix reticulata</i> ssp. <i>reticulata</i>	present	present
Salicaceae	<i>Salix scouleriana</i>	<i>Salix scouleriana</i>	present	present
Salicaceae	<i>Salix stolonifera</i>	<i>Salix stolonifera</i>	present	present
Caprifoliaceae	<i>Sambucus racemosa</i>	<i>Sambucus racemosa</i> var. <i>racemosa</i>	present	present
Rosaceae	<i>Sanguisorba canadensis</i>	<i>Sanguisorba canadensis</i>	present	present
Saxifragaceae	<i>Saxifraga bronchialis</i>	<i>Saxifraga bronchialis</i> (potentially ssp. <i>cherleriodi</i>)	present	present
Saxifragaceae	<i>Saxifraga bronchialis</i> ssp. <i>funstonii</i>	<i>Saxifraga bronchialis</i> ssp. <i>funstonii</i>	present	present
Saxifragaceae	<i>Saxifraga ferruginea</i>	<i>Saxifraga ferruginea</i>	present	present
Saxifragaceae	<i>Saxifraga hieracifolia</i>	<i>Saxifraga hieracifolia</i>	present	present
Saxifragaceae	<i>Saxifraga lyallii</i> var. <i>hultenii</i>	<i>Saxifraga lyallii</i> ssp. <i>hultenii</i>	present	present
Saxifragaceae	<i>Saxifraga mertensiana</i>	<i>Saxifraga mertensiana</i>	present	present
Saxifragaceae	<i>Saxifraga nelsoniana</i> ssp. <i>pacifica</i>	<i>Saxifraga nelsoniana</i> ssp. <i>pacifica</i>	present	present
Saxifragaceae	<i>Saxifraga nivalis</i>	<i>Saxifraga nivalis</i>	present	present
Saxifragaceae	<i>Saxifraga occidentalis</i>	<i>Saxifraga occidentalis</i>	present	present
Saxifragaceae	<i>Saxifraga oppositifolia</i>	<i>Saxifraga oppositifolia</i>	present	present
Saxifragaceae	<i>Saxifraga rivularis</i>	<i>Saxifraga rivularis</i>	present	present
Saxifragaceae	<i>Saxifraga tricuspidata</i>	<i>Saxifraga tricuspidata</i>	present	present
Cyperaceae	<i>Scirpus caespitosus</i> ssp. <i>austriacus</i>	<i>Trychophorum caespitosum</i>	present	present
Crassulaceae	<i>Sedum integrifolium</i> ssp. <i>integrifolium</i>	<i>Sedum integrifolium</i> ssp. <i>integrifolium</i>	present	present
Crassulaceae	<i>Sedum rosea</i> ssp. <i>integrifolium</i>	<i>Rhodiola integrifolia</i> ssp. <i>integrifolia</i>	present	present
Asteraceae	<i>Senecio triangularis</i>	<i>Senecio triangularis</i>	present	present
Rosaceae	<i>Sibbaldia procumbens</i>	<i>Sibbaldia procumbens</i>	present	present
Caryophyllaceae	<i>Silene acaulis</i>	<i>Silene acaulis</i>	present	present
Liliaceae	<i>Smilacina stellata</i>	<i>Maianthemum stellatum</i>	present	present
Asteraceae	<i>Solidago canadensis</i> var. <i>subserrata</i>	<i>Solidago canadensis</i> var. <i>lepidia</i>	present	present
Asteraceae	<i>Solidago multiradiata</i>	<i>Solidago multiradiata</i>	present	present
Rosaceae	<i>Sorbus scopulina</i>	<i>Sorbus scopulina</i>	present	present
Rosaceae	<i>Sorbus sitchensis</i>	<i>Sorbus sitchensis</i>	present	present
Sparganiaceae	<i>Sparganium angustifolium</i>	<i>Sparganium angustifolium</i>	present	present
Sparganiaceae	<i>Sparganium minimum</i>	<i>Sparganium natans</i>	present	present
Rosaceae	<i>Spiraea stevenii</i>	<i>Spiraea stevenii</i>	present	present
Caryophyllaceae	<i>Stellaria alaskana</i>	<i>Stellaria alaskana</i>	present	present
Caryophyllaceae	<i>Stellaria borealis</i>	<i>Stellaria borealis</i> (potentially ssp. <i>sitchana</i> ?)	present	present
Caryophyllaceae	<i>Stellaria crispa</i>	<i>Stellaria crispa</i>	present	present
Caryophyllaceae	<i>Stellaria humifusa</i>	<i>Stellaria humifusa</i>	present	present
Caryophyllaceae	<i>Stellaria laeta</i>	<i>Stellaria longipes</i>	present	present
Caryophyllaceae	<i>Stellaria media</i>	<i>Stellaria media</i>	present	present
Liliaceae	<i>Streptopus amplexifolius</i>	<i>Streptopus amplexifolius</i>	present	present
Asteraceae	<i>Taraxacum ceratophorum</i>	<i>Taraxacum officinale</i> ssp. <i>ceratophorum</i>	present	present
Asteraceae	<i>Taraxacum officinale</i>	<i>Taraxacum officinale</i>	present	present
Ranunculaceae	<i>Thalictrum sparsiflorum</i>	<i>Thalictrum sparsiflorum</i>	present	present
Thelypteridaceae	<i>Thelypteris phegopteris</i>	<i>Phegopteris connectilis</i>	present	present
Saxifragaceae	<i>Tiarella trifoliata</i>	<i>Tiarella trifoliata</i> var. <i>trifoliata</i>	present	present

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

National Park Service 2001 Status of Vascular Plants Expected or Documented in Klondike Gold Rush National Historical Park (cont.) –

Family	Previous Name	ITIS Name	2001 HPS Status	2001 HPS Status
Liliaceae	<i>Tofieldia coccinea</i>	<i>Tofieldia coccinea</i>	present	present
Cyperaceae	<i>Trichophorum caespitosum</i>	<i>Trichophorum caespitosum</i>	present	present
Primulaceae	<i>Trientalis europaea</i>	<i>Trientalis europaea</i>	present	present
Fabaceae	<i>Trifolium pratense</i>	<i>Trifolium pratense</i>	present	present
Fabaceae	<i>Trifolium repens</i>	<i>Trifolium repens</i>	present	present
Juncaginaceae	<i>Triglochin maritimum</i>	<i>Triglochin maritimum</i>	present	present
Poaceae	<i>Trisetum spicatum</i>	<i>Trisetum spicatum</i>	present	present
Pinaceae	<i>Tsuga heterophylla</i>	<i>Tsuga heterophylla</i>	present	present
Pinaceae	<i>Tsuga mertensiana</i>	<i>Tsuga mertensiana</i>	present	present
Urticaceae	<i>Urtica dioica</i>	<i>Urtica dioica</i>	present	present
Ericaceae	<i>Vaccinium caespitosum</i>	<i>Vaccinium caespitosum</i>	present	present
Ericaceae	<i>Vaccinium ovalifolium</i>	<i>Vaccinium ovalifolium</i>	present	present
Ericaceae	<i>Vaccinium parvifolium</i>	<i>Vaccinium parvifolium</i>	present	present
Ericaceae	<i>Vaccinium uliginosum</i>	<i>Vaccinium uliginosum</i>	present	present
Ericaceae	<i>Vaccinium vitis-idaea</i>	<i>Vaccinium vitis-idaea</i>	present	present
Poaceae	<i>Vahlodea atropurpurea</i>	<i>Vahlodea atropurpurea</i>	present	present
Valerianaceae	<i>Valeriana sitchensis</i>	<i>Valeriana sitchensis</i>	present	present
Liliaceae	<i>Veratrum viride</i>	<i>Veratrum viride</i>	present	present
Scrophulariaceae	<i>Veronica tenella</i>	<i>Veronica serpyllifolia ssp. humifusa</i>	present	present
Scrophulariaceae	<i>Veronica wormskjoldii</i>	<i>Veronica wormskjoldii</i>	present	present
Caprifoliaceae	<i>Viburnum edule</i>	<i>Viburnum edule</i>	present	present
Violaceae	<i>Viola epipsila</i>	<i>Viola epipsila ssp. repens</i>	present	present
Violaceae	<i>Viola glabella</i>	<i>Viola glabella</i>	present	present
Violaceae	<i>Viola langsdorfii</i>	<i>Viola langsdorfii</i>	present	present
Violaceae	<i>Viola palustris</i>	<i>Viola palustris</i>	present	present
Dryopteridaceae	<i>Woodsia scopulina</i>	<i>Woodsia scopulina</i>	present	present
Poaceae	<i>Agrostis mertensii</i>	<i>Agrostis mertensii</i>	none	present
Cyperaceae	<i>Carex macrochaeta</i>	<i>Carex macrochaeta</i>	none	present
Rosaceae	<i>Potentilla hyparctica</i>	<i>Potentilla nana</i>	none	present
Caryophyllaceae	<i>Stellaria monantha</i>	<i>Stellaria longipes</i>	none	present
Brassicaceae	<i>Draba glabella</i>	<i>Draba glabella</i>	none	present
Cyperaceae	<i>Eleocharis kamschatica</i>	<i>Eleocharis kamschatica</i>	none	present
Polygonaceae	<i>Rheum rhabarbarum</i>	<i>Rheum rhabarbarum</i>	none	present
Asteraceae	<i>Agoseris aurantiaca</i>	<i>Agoseris aurantiaca</i>	probably present	probably present
Asteraceae	<i>Agoseris glauca</i>	<i>Agoseris glauca</i>	probably present	probably present
Poaceae	<i>Altopecurus pratensis</i>	<i>Altopecurus pratensis</i>	probably present	probably present
Boraginaceae	<i>Amsinckia menziesii</i>	<i>Amsinckia menziesii</i>	probably present	probably present
Asteraceae	<i>Anaphalis margaritacea</i>	<i>Anaphalis margaritacea</i>	probably present	present
Ericaceae	<i>Andromeda polifolia</i>	<i>Andromeda polifolia</i>	probably present	probably present
Ranunculaceae	<i>Anemone narcissiflora ssp. alaskana</i>	<i>Anemone narcissiflora ssp. alaskana</i>	probably present	probably present
Ranunculaceae	<i>Anemone parviflora</i>	<i>Anemone parviflora</i>	probably present	probably present
Apiaceae	<i>Angelica genulflexa</i>	<i>Angelica genulflexa</i>	probably present	probably present
Asteraceae	<i>Antennaria pulcherrima</i>	<i>Antennaria pulcherrima</i>	probably present	probably present
Asteraceae	<i>Antennaria rosea ssp. confinis</i>	<i>Antennaria rosea ssp. confinis</i>	probably present	probably present
Asteraceae	<i>Antennaria rosea ssp. pulvinata</i>	<i>Antennaria rosea ssp. pulvinata</i>	probably present	probably present
Asteraceae	<i>Arnica alpina</i>	<i>Arnica alpina</i>	probably present	probably present
Asteraceae	<i>Aster modestus</i>	<i>Canadanthus modestus</i>	probably present	probably present
Asteraceae	<i>Aster subspicatus</i>	<i>Symphotrichum subspicatum var. subspicatum</i>	probably present	probably present
Fabaceae	<i>Astragalus robbinsii</i>	<i>Astragalus robbinsii</i>	probably present	probably present
Fabaceae	<i>Astragalus umbellatus</i>	<i>Astragalus umbellatus</i>	probably present	probably present
Chenopodiaceae	<i>Atriplex alaskensis</i>	<i>Atriplex alaskensis</i>	probably present	probably present
Blechnaceae	<i>Blechnum spicant</i>	<i>Blechnum spicant</i>	probably present	probably present
Ophioglossaceae	<i>Botrychium multifidum</i>	<i>Botrychium multifidum</i>	probably present	present
Ophioglossaceae	<i>Botrychium lunaria</i>	<i>Botrychium lunaria</i>	probably present	present
Brassicaceae	<i>Capsella bursa-pastoris</i>	<i>Capsella bursa-pastoris</i>	probably present	present
Cyperaceae	<i>Carex atosquama</i>	<i>Carex atosquama</i>	probably present	probably present
Cyperaceae	<i>Carex macrochaeta</i>	<i>Carex macrochaeta</i>	probably present	probably present
Cyperaceae	<i>Carex enanderi</i>	<i>Carex lenticularis var. dolia</i>	probably present	present
Cyperaceae	<i>Carex lachenalii</i>	<i>Carex lachenalii</i>	probably present	present
Cyperaceae	<i>Carex livida</i>	<i>Carex livida</i>	probably present	present
Cyperaceae	<i>Carex loliacea</i>	<i>Carex loliacea</i>	probably present	present
Cyperaceae	<i>Carex pachystachya</i>	<i>Carex pachystachya</i>	probably present	present
Cyperaceae	<i>Carex podocarpa</i>	<i>Carex podocarpa</i>	probably present	probably present
Cyperaceae	<i>Carex rostrata</i>	<i>Carex rostrata</i>	probably present	probably present
Cyperaceae	<i>Carex spectabilis</i>	<i>Carex spectabilis</i>	probably present	present
Cyperaceae	<i>Carex utriculata</i>	<i>Carex utriculata</i>	probably present	probably present
Ericaceae	<i>Cassiope lycopodioides</i>	<i>Cassiope lycopodioides</i>	probably present	probably present
Ericaceae	<i>Cassiope tetragona</i>	<i>Cassiope tetragona</i>	probably present	probably present
Scrophulariaceae	<i>Castilleja parviflora</i>	<i>Castilleja parviflora</i>	probably present	present
Caryophyllaceae	<i>Cerastium arvense</i>	<i>Cerastium arvense</i>	probably present	probably present
Caryophyllaceae	<i>Cerastium beeringianum</i>	<i>Cerastium beeringianum</i>	probably present	present
Saxifragaceae	<i>Chryso-splenium tetrandrum</i>	<i>Chryso-splenium tetrandrum</i>	probably present	present
Portulacaceae	<i>Claytonia chamissoi</i>	<i>Montia chamissoi</i>	probably present	probably present
Portulacaceae	<i>Claytonia sarmentosa</i>	<i>Claytonia sarmentosa</i>	probably present	present
Scrophulariaceae	<i>Collinsia parviflora</i>	<i>Collinsia parviflora</i>	probably present	probably present
Apiaceae	<i>Conioselinum pacificum</i>	<i>Conioselinum gemlinii</i>	probably present	probably present
Ranunculaceae	<i>Coptis aspleniifolia</i>	<i>Coptis aspleniifolia</i>	probably present	probably present
Orchidaceae	<i>Corallorrhiza maculata</i>	<i>Corallorrhiza maculata</i>	probably present	probably present
Cornaceae	<i>Cornus canadensis x suecica</i>	<i>Cornus canadensis x suecica</i>	probably present	probably present
Fumariaceae	<i>Corydalis aurea</i>	<i>Corydalis aurea</i>	probably present	probably present

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

National Park Service 2001 Status of Vascular Plants Expected or Documented in Klondike Gold Rush National Historical Park (cont.) –

Family	Previous Name	ITIS Name	2001 IIPS Status	2001 IIPS Status
Boraginaceae	<i>Cryptantha torreyana</i>	<i>Cryptantha torreyana</i>	probably present	probably present
Orchidaceae	<i>Cypripedium montanum</i>	<i>Cypripedium montanum</i>	probably present	probably present
Orchidaceae	<i>Cypripedium passerinum</i>	<i>Cypripedium passerinum</i>	probably present	probably present
Dryopteridaceae	<i>Cystopteris montana</i>	<i>Cystopteris montana</i>	probably present	present
Asteraceae	<i>Descurainia sophioides</i>	<i>Descurainia sophioides</i>	probably present	present
Primulaceae	<i>Dodecatheon frigidum</i>	<i>Dodecatheon frigidum</i>	probably present	present
Brassicaceae	<i>Draba lonchocarpa</i> var. <i>lonchocarpa</i>	<i>Draba lonchocarpa</i> var. <i>lonchocarpa</i>	probably present	present
Brassicaceae	<i>Draba stenoloba</i>	<i>Draba stenoloba</i>	probably present	present
Droseraceae	<i>Drosera rotundifolia</i>	<i>Drosera rotundifolia</i>	probably present	probably present
Rosaceae	<i>Dryas drummondii</i>	<i>Dryas drummondii</i>	probably present	probably present
Rosaceae	<i>Dryas octopetala</i>	<i>Dryas octopetala</i>	probably present	present
Ericaceae	<i>Elliottia pyroliflorus</i>	<i>Elliottia pyroliflorus</i>	probably present	probably present
Empetraceae	<i>Empetrum hermaphroditum</i>	<i>Empetrum nigrum</i> ssp. <i>hermaphroditum</i>	probably present	probably present
Onagraceae	<i>Epilobium lactiflorum</i>	<i>Epilobium lactiflorum</i>	probably present	present
Onagraceae	<i>Epilobium leptocarpum</i>	<i>Epilobium leptocarpum</i>	probably present	probably present
Asteraceae	<i>Erigeron compositus</i>	<i>Erigeron compositus</i>	probably present	probably present
Cyperaceae	<i>Eriophorum angustifolium</i>	<i>Eriophorum angustifolium</i> ssp. <i>triste</i>	probably present	probably present
Cyperaceae	<i>Eriophorum russeolum</i> var. <i>majus</i>	<i>Eriophorum russeolum</i> var. <i>majus</i>	probably present	present
Brassicaceae	<i>Erysimum cheiranthoides</i>	<i>Erysimum cheiranthoides</i>	probably present	probably present
Scrophulariaceae	<i>Euphrasia disjuncta</i>	<i>Euphrasia disjuncta</i>	probably present	present
Scrophulariaceae	<i>Euphrasia nemorosa</i>	<i>Euphrasia nemorosa</i>	none	present
Rosaceae	<i>Fragaria chiloensis</i>	<i>Fragaria chiloensis</i> ssp. <i>pacifica</i>	probably present	probably present
Lamiaceae	<i>Galeopsis bifida</i>	<i>Galeopsis bifida</i>	probably present	present
Rubiaceae	<i>Galium aparine</i>	<i>Galium aparine</i>	probably present	probably present
Gentianaceae	<i>Gentiana glauca</i>	<i>Gentiana glauca</i>	probably present	present
Gentianaceae	<i>Gentianella propinqua</i>	<i>Gentianella propinqua</i>	probably present	probably present
Orchidaceae	<i>Goodyera oblongifolia</i>	<i>Goodyera oblongifolia</i>	probably present	probably present
Dryopteridaceae	<i>Gymnocarpium disjunctum</i>	<i>Gymnocarpium disjunctum</i>	probably present	probably present
Fabaceae	<i>Hedysarum alpinum</i>	<i>Hedysarum alpinum</i>	probably present	probably present
Fabaceae	<i>Hedysarum boreale</i> ssp. <i>mackenziei</i>	<i>Hedysarum boreale</i> ssp. <i>mackenziei</i>	probably present	probably present
Lycopodiaceae	<i>Huperzia selago</i> ssp. <i>appressa</i>	<i>Huperzia selago</i> var. <i>densa</i>	probably present	present
Juncaceae	<i>Juncus arcticus</i> ssp. <i>Ater</i>	<i>Juncus balticus</i> var. <i>montanus</i>	probably present	present
Juncaceae	<i>Juncus castaneus</i>	<i>Juncus castaneus</i>	probably present	present
Juncaceae	<i>Juncus falcatus</i>	<i>Juncus falcatus</i>	probably present	probably present
Cupressaceae	<i>Juniperus communis</i>	<i>Juniperus communis</i>	probably present	present
Ericaceae	<i>Kalmia polifolia</i>	<i>Kalmia polifolia</i>	probably present	present
Boraginaceae	<i>Lappula myosotis</i>	<i>Lappula squarosa</i>	probably present	probably present
Scrophulariaceae	<i>Linaria vulgaris</i>	<i>Linaria vulgaris</i>	probably present	probably present
Fabaceae	<i>Lupinus polyphyllus</i>	<i>Lupinus polyphyllus</i>	probably present	present
Juncaceae	<i>Luzula arcuata</i> ssp. <i>unalaschcensis</i>	<i>Luzula arcuata</i> ssp. <i>unalaschcensis</i>	probably present	present
Lycopodiaceae	<i>Lycopodium dendroideum</i>	<i>Lycopodium dendroideum</i>	probably present	probably present
Liliaceae	<i>Maianthemum dilatatum</i>	<i>Maianthemum dilatatum</i>	probably present	present
Orchidaceae	<i>Malaxis brachypoda</i>	<i>Malaxis brachypoda</i>	probably present	probably present
Caryophyllaceae	<i>Minuartia biflora</i>	<i>Minuartia biflora</i>	probably present	probably present
Caryophyllaceae	<i>Minuartia macrocarpa</i>	<i>Minuartia macrocarpa</i>	probably present	present
Saxifragaceae	<i>Mitella trifida</i>	<i>Mitella trifida</i>	probably present	probably present
Apiaceae	<i>Osmorhiza chilensis</i>	<i>Osmorhiza berteroi</i>	probably present	probably present
Apiaceae	<i>Osmorhiza depauperata</i>	<i>Osmorhiza depauperata</i>	probably present	present
Fabaceae	<i>Oxytropis gracilis</i>	<i>Oxytropis monticola</i>	probably present	probably present
Fabaceae	<i>Oxytropis jordalii</i>	<i>Oxytropis campestris</i> var. <i>jordalii</i>	probably present	probably present
Saxifragaceae	<i>Parnassia kotzebuei</i>	<i>Parnassia kotzebuei</i>	probably present	present
Scrophulariaceae	<i>Pedicularis capitata</i>	<i>Pedicularis capitata</i>	probably present	present
Scrophulariaceae	<i>Pedicularis sudetica</i> ssp. <i>interior</i>	<i>Pedicularis sudetica</i> ssp. <i>interior</i>	probably present	present
Scrophulariaceae	<i>Pedicularis verticillata</i>	<i>Pedicularis verticillata</i>	probably present	probably present
Scrophulariaceae	<i>Penstemon procerus</i>	<i>Penstemon procerus</i>	probably present	probably present
Asteraceae	<i>Petasites frigidus</i>	<i>Petasites frigidus</i>	probably present	probably present
Hydrophyllaceae	<i>Phacelia mollis</i>	<i>Phacelia mollis</i>	probably present	probably present
Hydrophyllaceae	<i>Phacelia sericea</i>	<i>Phacelia sericea</i>	probably present	probably present
Ericaceae	<i>Phyllodoce aleutica</i>	<i>Phyllodoce aleutica</i>	probably present	probably present
Lentibulariaceae	<i>Pinguicula vulgaris</i>	<i>Pinguicula vulgaris</i>	probably present	present
Poaceae	<i>Poa arctica</i> ssp. <i>arctica</i>	<i>Poa arctica</i> ssp. <i>arctica</i>	probably present	present
Poaceae	<i>Poa pratensis</i>	<i>Poa pratensis</i>	probably present	present
Poaceae	<i>Poa glauca</i>	<i>Poa glauca</i>	probably present	present
Poaceae	<i>Podagrostis aequivalvis</i>	<i>Agrostis aequivalvis</i>	probably present	probably present
Polemoniaceae	<i>Polemonium acutiflorum</i>	<i>Polemonium acutiflorum</i>	probably present	probably present
Polemoniaceae	<i>Polemonium boreale</i>	<i>Polemonium boreale</i>	probably present	probably present
Polygonaceae	<i>Polygonum caurianum</i>	<i>Polygonum caurianum</i>	probably present	probably present
Polygonaceae	<i>Polygonum fowleri</i>	<i>Polygonum fowleri</i>	probably present	probably present
Dryopteridaceae	<i>Polystichum braunii</i>	<i>Polystichum braunii</i>	probably present	present
Salicaceae	<i>Populus tremuloides</i>	<i>Populus tremuloides</i>	probably present	probably present
Potamogetonaceae	<i>Potamogeton alpinus</i> ssp. <i>tenuifolius</i>	<i>Potamogeton alpinus</i>	probably present	probably present
Rosaceae	<i>Potentilla gracilis</i>	<i>Potentilla gracilis</i>	probably present	probably present
Rosaceae	<i>Potentilla uniflora</i>	<i>Potentilla uniflora</i>	probably present	present
Primulaceae	<i>Primula egalkensis</i>	<i>Primula egalkensis</i>	probably present	probably present
Ranunculaceae	<i>Ranunculus nivalis</i>	<i>Ranunculus nivalis</i>	probably present	present
Ranunculaceae	<i>Ranunculus reptans</i>	<i>Ranunculus flammula</i> var. <i>filiformis</i>	probably present	probably present
Ranunculaceae	<i>Ranunculus trichophyllus</i>	<i>Ranunculus trichophyllus</i>	probably present	probably present
Crassulaceae	<i>Rhodiola integrifolia</i>	<i>Rhodiola integrifolia</i>	probably present	probably present
Grossulariaceae	<i>Ribes bracteosum</i>	<i>Ribes bracteosum</i>	probably present	probably present

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

National Park Service 2001 Status of Vascular Plants Expected or Documented in Klondike Gold Rush National Historical Park (cont.) –

Family	Previous Name	ITIS Name	2001 IIPS Status	2001 IIPS Status
Grossulariaceae	<i>Ribes hudsonianum</i>	<i>Ribes hudsonianum</i>	probably present	present
Rosaceae	<i>Rubus arcticus</i> ssp. <i>acaulis</i>	<i>Rubus arcticus</i> ssp. <i>acaulis</i>	probably present	probably present
Rosaceae	<i>Rubus parviflorus</i>	<i>Rubus parviflorus</i>	probably present	probably present
Polygonaceae	<i>Rumex transitivus</i>	<i>Rumex salicifolius</i> var. <i>transitivus</i>	probably present	probably present
Caryophyllaceae	<i>Sagina nivalis</i>	<i>Sagina nivalis</i>	probably present	present
Salicaceae	<i>Salix sitchensis</i>	<i>Salix sitchensis</i>	probably present	present
Salicaceae	<i>Salix myrtillofolia</i>	<i>Salix myrtillofolia</i>	probably present	present
Asteraceae	<i>Saussurea americana</i>	<i>Saussurea americana</i>	probably present	probably present
Saxifragaceae	<i>Saxifraga caespitosa</i>	<i>Saxifraga caespitosa</i>	probably present	probably present
Saxifragaceae	<i>Saxifraga cernua</i>	<i>Saxifraga cernua</i>	probably present	present
Saxifragaceae	<i>Saxifraga tenuis</i>	<i>Saxifraga tenuis</i>	probably present	present
Crassulaceae	<i>Sedum divergens</i>	<i>Sedum divergens</i>	probably present	probably present
Asteraceae	<i>Senecio vulgaris</i>	<i>Senecio vulgaris</i>	probably present	probably present
Elaeagnaceae	<i>Shepherdia canadensis</i>	<i>Shepherdia canadensis</i>	probably present	probably present
Sparganiaceae	<i>Sparganium hyperboreum</i>	<i>Sparganium hyperboreum</i>	probably present	probably present
Caryophyllaceae	<i>Spergula arvensis</i>	<i>Spergula arvensis</i>	probably present	probably present
Caryophyllaceae	<i>Spergularia canadensis</i>	<i>Spergularia canadensis</i>	probably present	probably present
Caryophyllaceae	<i>Stellaria borealis</i> ssp. <i>borealis</i>	<i>Stellaria borealis</i> ssp. <i>borealis</i>	probably present	probably present
Caryophyllaceae	<i>Stellaria calycantha</i>	<i>Stellaria calycantha</i>	probably present	present
Caryophyllaceae	<i>Stellaria crassifolia</i>	<i>Stellaria crassifolia</i>	probably present	probably present
Caryophyllaceae	<i>Stellaria longifolia</i>	<i>Stellaria longifolia</i>	probably present	probably present
Gentianaceae	<i>Swertia perennis</i>	<i>Swertia perennis</i>	probably present	probably present
Caprifoliaceae	<i>Symphoricarpos albus</i>	<i>Symphoricarpos albus</i>	probably present	probably present
Asteraceae	<i>Taraxacum alaskanum</i>	<i>Taraxacum phymatocarpum</i>	probably present	present
Saxifragaceae	<i>Tellima grandiflora</i>	<i>Tellima grandiflora</i>	probably present	present
Saxifragaceae	<i>Tiarella unifoliata</i>	<i>Tiarella trifoliata</i> var. <i>unifoliata</i>	probably present	probably present
Liliaceae	<i>Tofieldia glutinosa</i>	<i>Tofieldia glutinosa</i>	probably present	probably present
Fabaceae	<i>Trifolium hybridum</i>	<i>Trifolium hybridum</i>	probably present	probably present
Juncaginaceae	<i>Triglochin palustre</i>	<i>Triglochin palustre</i>	probably present	probably present
Lentibulariaceae	<i>Utricularia intermedia</i>	<i>Utricularia intermedia</i>	probably present	probably present
Ericaceae	<i>Vaccinium oxycoccos</i>	<i>Vaccinium oxycoccos</i>	probably present	probably present
Scrophulariaceae	<i>Veronica americana</i>	<i>Veronica americana</i>	probably present	present
Scrophulariaceae	<i>Veronica serpyllifolia</i>	<i>Veronica serpyllifolia</i> ssp. <i>serpyllifolia</i>	probably present	probably present
Violaceae	<i>Viola adunca</i>	<i>Viola adunca</i>	probably present	probably present
Dryopteridaceae	<i>Woodsia alpina</i>	<i>Woodsia alpina</i>	probably present	probably present
Poaceae	<i>Agropyron caninum</i>	<i>Elymus caninus</i>	unconfirmed	unconfirmed
Poaceae	<i>Agrostis scabra</i>	<i>Agrostis scabra</i>	unconfirmed	unconfirmed
Liliaceae	<i>Allium schoenoprasum</i> ssp. <i>sibiricum</i>	<i>Allium schoenoprasum</i> var. <i>sibiricum</i>	unconfirmed	unconfirmed
Betulaceae	<i>Alnus crispa</i>	<i>Alnus viridis</i> ssp. <i>sinuata</i>	unconfirmed	unconfirmed
Betulaceae	<i>Alnus viridis</i> ssp. <i>fruticosa</i>	<i>Alnus viridis</i> ssp. <i>fruticosa</i>	unconfirmed	unconfirmed
Orchidaceae	<i>Amerorchis rotundifolia</i>	<i>Amerorchis rotundifolia</i>	unconfirmed	unconfirmed
Primulaceae	<i>Androsace septentrionalis</i>	<i>Androsace septentrionalis</i>	unconfirmed	unconfirmed
Ranunculaceae	<i>Anemone drummondii</i> var. <i>lithophila</i>	<i>Anemone lithophila</i>	unconfirmed	unconfirmed
Ranunculaceae	<i>Anemone multifida</i>	<i>Anemone multifida</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Aphragmus eschscholtzianus</i>	<i>Aphragmus eschscholtzianus</i>	unconfirmed	unconfirmed
Apocynaceae	<i>Apocynum androsaemifolium</i>	<i>Apocynum androsaemifolium</i>	unconfirmed	unconfirmed
Ranunculaceae	<i>Aquilegia brevistyla</i>	<i>Aquilegia brevistyla</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Arabis divaricata</i> var. <i>dacotica</i>	<i>Arabis holboellii</i> var. <i>collinsii</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Arabis drepanoloba</i>	<i>Arabis lemmonii</i> var. <i>drepanoloba</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Arabis drummondii</i>	<i>Arabis drummondii</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Arabis holboellii</i> var. <i>retrofracta</i>	<i>Arabis holboellii</i> var. <i>retrofracta</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Arabis lignifera</i>	<i>Arabis lignifera</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Arabis nuttallii</i>	<i>Arabis nuttallii</i>	unconfirmed	unconfirmed
Poaceae	<i>Arctophila fulva</i>	<i>Arctophila fulva</i>	unconfirmed	unconfirmed
Caryophyllaceae	<i>Arenaria longipedunculata</i>	<i>Arenaria longipedunculata</i>	unconfirmed	unconfirmed
Asteraceae	<i>Arnica cordifolia</i>	<i>Arnica cordifolia</i>	unconfirmed	unconfirmed
Asteraceae	<i>Arnica griseomii</i> ssp. <i>frigida</i>	<i>Arnica frigida</i>	unconfirmed	unconfirmed
Asteraceae	<i>Arnica lonchophylla</i>	<i>Arnica lonchophylla</i>	unconfirmed	unconfirmed
Asteraceae	<i>Artemisia campestris</i>	<i>Artemisia campestris</i>	unconfirmed	unconfirmed
Asteraceae	<i>Artemisia dracuncululus</i>	<i>Artemisia dracuncululus</i>	unconfirmed	unconfirmed
Asteraceae	<i>Artemisia frigida</i>	<i>Artemisia frigida</i>	unconfirmed	unconfirmed
Asteraceae	<i>Artemisia tilesii</i> ssp. <i>gormanii</i>	<i>Artemisia tilesii</i> ssp. <i>gormanii</i>	unconfirmed	unconfirmed
Asteraceae	<i>Aster laevis</i> var. <i>geyeri</i>	<i>Symphotrichum laevis</i> var. <i>geyeri</i>	unconfirmed	unconfirmed
Asteraceae	<i>Aster sibiricus</i>	<i>Aster sibiricus</i>	unconfirmed	unconfirmed
Fabaceae	<i>Astragalus bodinii</i>	<i>Astragalus bodinii</i>	unconfirmed	unconfirmed
Fabaceae	<i>Astragalus tenellus</i>	<i>Astragalus tenellus</i>	unconfirmed	unconfirmed
Fabaceae	<i>Astragalus williamsii</i>	<i>Astragalus williamsii</i>	unconfirmed	unconfirmed
Poaceae	<i>Beckmannia syzigachne</i>	<i>Beckmannia syzigachne</i>	unconfirmed	unconfirmed
Betulaceae	<i>Betula nealaskana</i>	<i>Betula nealaskana</i>	unconfirmed	unconfirmed
Betulaceae	<i>Betula occidentalis</i>	<i>Betula occidentalis</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Braya humilis</i>	<i>Braya humilis</i>	unconfirmed	unconfirmed
Poaceae	<i>Bromus inermis</i> ssp. <i>pumpellianus</i>	<i>Bromus inermis</i> ssp. <i>pumpellianus</i>	unconfirmed	unconfirmed
Poaceae	<i>Bromus pumpellianus</i> var. <i>arcticus</i>	<i>Bromus inermis</i> var. <i>arcticus</i>	unconfirmed	unconfirmed
Callitricheae	<i>Callitriche hermaphroditica</i>	<i>Callitriche hermaphroditica</i>	unconfirmed	unconfirmed
Ranunculaceae	<i>Caltha biflora</i>	<i>Caltha leptosepala</i> ssp. <i>howellii</i>	unconfirmed	unconfirmed
Orchidaceae	<i>Calypto bulbosa</i>	<i>Calypto bulbosa</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Cardamine cordifolia</i>	<i>Cardamine cordifolia</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex albionigra</i>	<i>Carex albionigra</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex anthoxantha</i>	<i>Carex anthoxantha</i>	unconfirmed	present

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

National Park Service 2001 Status of Vascular Plants Expected or Documented in Klondike Gold Rush National Historical Park (cont.) –

Family	Previous Name	ITIS Name	2001 HPS Status	2001 IHP Status
Cyperaceae	<i>Carex atherodes</i>	<i>Carex atherodes</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex atratiformis</i> ssp. <i>raymondii</i>	<i>Carex raymondii</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex aurea</i>	<i>Carex aurea</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex capillaris</i> ssp. <i>chlorostachys</i>	<i>Carex capillaris</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex capitata</i>	<i>Carex capitata</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex circinata</i>	<i>Carex circinata</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex concinna</i>	<i>Carex concinna</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex filifolia</i>	<i>Carex filifolia</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex garberi</i> ssp. <i>bifaria</i>	<i>Carex garberi</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex gynocrates</i>	<i>Carex gynocrates</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex mackenziei</i>	<i>Carex mackenziei</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex maritima</i>	<i>Carex maritima</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex media</i>	<i>Carex norvegica</i> ssp. <i>inferalpina</i>	unconfirmed	present
Cyperaceae	<i>Carex microchaeta</i>	<i>Carex microchaeta</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex microptera</i>	<i>Carex microptera</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex nardina</i>	<i>Carex nardina</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex obtusata</i>	<i>Carex obtusata</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex petasata</i>	<i>Carex petasata</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex praticola</i>	<i>Carex praticola</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex rossii</i>	<i>Carex rossii</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex rupestris</i>	<i>Carex rupestris</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex stenophylla</i>	<i>Carex duriuscula</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex stylosa</i>	<i>Carex stylosa</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex subspathacea</i>	<i>Carex subspathacea</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex supina</i> ssp. <i>spaniocarpa</i>	<i>Carex supina</i> var. <i>spaniocarpa</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Carex vaginata</i>	<i>Carex vaginata</i>	unconfirmed	unconfirmed
Scrophulariaceae	<i>Castilleja miniata</i>	<i>Castilleja miniata</i>	unconfirmed	unconfirmed
Scrophulariaceae	<i>Castilleja yukonis</i>	<i>Castilleja yukonis</i>	unconfirmed	unconfirmed
Asteraceae	CENTAUREA CF MACULOSA LAM.	<i>Centaurea biebersteinii</i>	unconfirmed	unconfirmed
Cupressaceae	<i>Chamaecyparis nootkatensis</i>	<i>Chamaecyparis nootkatensis</i>	unconfirmed	unconfirmed
Rosaceae	<i>Chamaerhodos erecta</i> ssp. <i>nuttallii</i>	<i>Chamaerhodos erecta</i> ssp. <i>nuttallii</i>	unconfirmed	unconfirmed
Chenopodiaceae	<i>Chenopodium desiccatum</i>	<i>Chenopodium desiccatum</i>	unconfirmed	unconfirmed
Chenopodiaceae	<i>Chenopodium leptophyllum</i>	<i>Chenopodium leptophyllum</i>	unconfirmed	unconfirmed
Chenopodiaceae	<i>Chenopodium rubrum</i>	<i>Chenopodium rubrum</i>	unconfirmed	unconfirmed
Saxifragaceae	<i>Chrysosplenium wrightii</i>	<i>Chrysosplenium wrightii</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Cochlearia officinalis</i>	<i>Cochlearia officinalis</i>	unconfirmed	unconfirmed
Orchidaceae	<i>Coeloglossum viride</i> ssp. <i>bracteatum</i>	<i>Coeloglossum viride</i> var. <i>virescens</i>	unconfirmed	unconfirmed
Polemoniaceae	<i>Collomia linearis</i>	<i>Collomia linearis</i>	unconfirmed	unconfirmed
Fumariaceae	<i>Corydalis pauciflora</i>	<i>Corydalis pauciflora</i>	unconfirmed	unconfirmed
Asteraceae	CREPIS TECTORUM L.	<i>crepis tectorum</i>	unconfirmed	unconfirmed
Poaceae	<i>Danthonia intermedia</i>	<i>Danthonia intermedia</i>	unconfirmed	unconfirmed
Ranunculaceae	<i>Delphinium glaucum</i>	<i>Delphinium glaucum</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Descurainia incana</i>	<i>Descurainia incana</i>	unconfirmed	unconfirmed
Primulaceae	<i>Dodecatheon jeffreyi</i>	<i>Dodecatheon jeffreyi</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Draba aurea</i>	<i>Draba aurea</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Draba borealis</i>	<i>Draba borealis</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Draba cana</i>	<i>Draba breweri</i> var. <i>cana</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Draba cinerea</i>	<i>Draba cinerea</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Draba crassifolia</i>	<i>Draba crassifolia</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Draba longipes</i>	<i>Draba juvenilis</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Draba nivalis</i>	<i>Draba nivalis</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Draba oligosperma</i>	<i>Draba oligosperma</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Draba praealta</i>	<i>Draba praealta</i>	unconfirmed	unconfirmed
Rosaceae	<i>Dryas integrifolia</i> ssp. <i>sylvatica</i>	<i>Dryas integrifolia</i> ssp. <i>sylvatica</i>	unconfirmed	unconfirmed
Dryopteridaceae	<i>Dryopteris austriaca</i>	<i>Dryopteris campyloptera</i>	unconfirmed	unconfirmed
Dryopteridaceae	<i>Dryopteris fragrans</i>	<i>Dryopteris fragrans</i>	unconfirmed	unconfirmed
Elaeagnaceae	<i>Elaeagnus commutata</i>	<i>Elaeagnus commutata</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Eleocharis acicularis</i>	<i>Eleocharis acicularis</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Eleocharis palustris</i>	<i>Eleocharis palustris</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Eleocharis quinqueflora</i>	<i>Eleocharis quinqueflora</i>	unconfirmed	unconfirmed
Poaceae	<i>Elymus trachycaulus</i> ssp. <i>andinus</i>	<i>Elymus trachycaulus</i> ssp. <i>trachycaulus</i> (and subs)	unconfirmed	unconfirmed
Poaceae	<i>Elymus trachycaulus</i> ssp. <i>violaceus</i>	<i>Elymus alaskanus</i> ssp. <i>latiglumis</i>	unconfirmed	unconfirmed
Onagraceae	<i>Epilobium adenocaulon</i>	<i>Epilobium ciliatum</i> ssp. <i>ciliatum</i>	unconfirmed	unconfirmed
Equisetaceae	<i>Equisetum scirpoides</i>	<i>Equisetum scirpoides</i>	unconfirmed	unconfirmed
Equisetaceae	<i>Equisetum sylvaticum</i>	<i>Equisetum sylvaticum</i>	unconfirmed	unconfirmed
Asteraceae	<i>Erigeron elatus</i>	<i>Erigeron elatus</i>	unconfirmed	unconfirmed
Asteraceae	ERIGERON LONCHOPHYLLUS HOOK.	<i>Erigeron lonchophyllus</i>	unconfirmed	unconfirmed
Asteraceae	<i>Erigeron purpuratus</i>	<i>Erigeron purpuratus</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Eriophorum brachyantherum</i>	<i>Eriophorum brachyantherum</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Eriophorum chamissonis</i>	<i>Eriophorum chamissonis</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Erysimum angustatum</i>	<i>Erysimum angustatum</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Erysimum inconspicuum</i>	<i>Erysimum inconspicuum</i>	unconfirmed	unconfirmed
Menyanthaceae	<i>Fauria crista-galli</i>	<i>Nephrophyllidium crista-galli</i>	unconfirmed	unconfirmed
Poaceae	<i>Festuca arundinacea</i>	<i>Lolium arundinaceum</i>	unconfirmed	unconfirmed
Poaceae	<i>Festuca minutiflora</i>	<i>Festuca minutiflora</i>	unconfirmed	unconfirmed
Poaceae	<i>Festuca saximontana</i> var. <i>saximontana</i>	<i>Festuca saximontana</i> var. <i>saximontana</i>	unconfirmed	unconfirmed
Rosaceae	<i>Fragaria virginiana</i> ssp. <i>glauca</i>	<i>Fragaria virginiana</i> ssp. <i>glauca</i>	unconfirmed	unconfirmed
Liliaceae	FRITILLARIA CAMSCHATCENSIS (L.) KER-GAV	<i>Fritillaria camschatcensis</i>	unconfirmed	unconfirmed
Rubiaceae	<i>Gallium boreale</i>	<i>Gallium boreale</i>	unconfirmed	unconfirmed
Gentianaceae	<i>Gentianopsis detonsa</i> ssp. <i>yukonensis</i>	<i>Gentianopsis detonsa</i> ssp. <i>yukonensis</i>	unconfirmed	unconfirmed

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

National Park Service 2001 Status of Vascular Plants Expected or Documented in Klondike Gold Rush National Historical Park (cont.) –

Family	Previous Name	ITIS Name	2001 IIPS Status	2001 IIPS Status
Brassicaceae	<i>Halimolobos mollis</i>	<i>Halimolobos mollis</i>	unconfirmed	unconfirmed
Poaceae	<i>Hierochloa hirta ssp. arctica</i>	<i>Hierochloa hirta ssp. arctica</i>	unconfirmed	unconfirmed
Iridaceae	<i>Iris setosa</i>	<i>Iris setosa</i>	unconfirmed	unconfirmed
Iridaceae	<i>IRIS SETOSA PALL. SSP. INTERIOR (ANDERS.)</i>	<i>Iris setosa var. interior</i>	unconfirmed	unconfirmed
Iridaceae	<i>Iris setosa var. setosa</i>	<i>Iris setosa var. setosa</i>	unconfirmed	unconfirmed
Juncaceae	<i>Juncus triglumis</i>	<i>Juncus triglumis</i>	unconfirmed	unconfirmed
Cupressaceae	<i>Juniperus horizontalis</i>	<i>Juniperus horizontalis</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Kobresia myosuroides</i>	<i>Kobresia myosuroides</i>	unconfirmed	unconfirmed
Poaceae	<i>Koeleria macrantha</i>	<i>Koeleria macrantha</i>	unconfirmed	unconfirmed
Polygonaceae	<i>Koenigia islandica</i>	<i>Koenigia islandica</i>	unconfirmed	unconfirmed
Boraginaceae	<i>Lappula occidentalis</i>	<i>Lappula occidentalis</i>	unconfirmed	unconfirmed
Fabaceae	<i>Lathyrus palustris var. pilosus</i>	<i>Lathyrus palustris</i>	unconfirmed	unconfirmed
Lemnaceae	<i>Lemna minor</i>	<i>Lemna minor</i>	unconfirmed	unconfirmed
Lemnaceae	<i>Lemna trisulca</i>	<i>Lemna trisulca</i>	unconfirmed	unconfirmed
Linaceae	<i>Linum lewisii</i>	<i>Linum lewisii</i>	unconfirmed	unconfirmed
Orchidaceae	<i>Listera borealis</i>	<i>Listera borealis</i>	unconfirmed	unconfirmed
Fabaceae	<i>Lupinus kuschei</i>	<i>Lupinus kuschei</i>	unconfirmed	unconfirmed
Juncaceae	<i>Luzula confusa</i>	<i>Luzula confusa</i>	unconfirmed	unconfirmed
Araceae	<i>Lysichiton americanus</i>	<i>Lysichiton americanus</i>	unconfirmed	unconfirmed
Asteraceae	<i>Madia glomerata</i>	<i>Madia glomerata</i>	unconfirmed	unconfirmed
Orchidaceae	<i>Malaxis monophyllos</i>	<i>Malaxis diphyllus</i>	unconfirmed	present
Caryophyllaceae	<i>Minuartia dawsonensis</i>	<i>Minuartia dawsonensis</i>	unconfirmed	unconfirmed
Caryophyllaceae	<i>Minuartia elegans</i>	<i>Minuartia elegans</i>	unconfirmed	unconfirmed
Caryophyllaceae	<i>Minuartia obtusiloba</i>	<i>Minuartia obtusiloba</i>	unconfirmed	unconfirmed
Caryophyllaceae	<i>Minuartia rubella</i>	<i>Minuartia rubella</i>	unconfirmed	unconfirmed
Chenopodiaceae	<i>Monolepis nuttalliana</i>	<i>Monolepis nuttalliana</i>	unconfirmed	unconfirmed
Boraginaceae	<i>Myosotis alpestris ssp. asiatica</i>	<i>Myosotis asiatica</i>	unconfirmed	unconfirmed
Haloragaceae	<i>Myriophyllum sibiricum</i>	<i>Myriophyllum sibiricum</i>	unconfirmed	unconfirmed
Apiaceae	<i>Osmorhiza purpurea</i>	<i>Osmorhiza purpurea</i>	unconfirmed	unconfirmed
Ericaceae	<i>Oxycoccus microcarpus</i>	<i>Oxycoccus microcarpus</i>	unconfirmed	unconfirmed
Fabaceae	<i>Oxytropis deflexa var. sericea</i>	<i>Oxytropis deflexa var. sericea</i>	unconfirmed	unconfirmed
Fabaceae	<i>Oxytropis huddelsonii</i>	<i>Oxytropis huddelsonii</i>	unconfirmed	unconfirmed
Fabaceae	<i>Oxytropis maydelliana</i>	<i>Oxytropis maydelliana</i>	unconfirmed	unconfirmed
Fabaceae	<i>Oxytropis nigrescens var. nigrescens</i>	<i>Oxytropis nigrescens var. nigrescens</i>	unconfirmed	unconfirmed
Fabaceae	<i>Oxytropis splendens</i>	<i>Oxytropis splendens</i>	unconfirmed	unconfirmed
Fabaceae	<i>Oxytropis viscida</i>	<i>Oxytropis borealis var. viscida</i>	unconfirmed	unconfirmed
Scrophulariaceae	<i>Pedicularis labradorica</i>	<i>Pedicularis labradorica</i>	unconfirmed	unconfirmed
Scrophulariaceae	<i>Pedicularis langsdoerffii ssp. arctica</i>	<i>Pedicularis langsdoerffii ssp. arctica</i>	unconfirmed	unconfirmed
Scrophulariaceae	<i>Pedicularis oederi</i>	<i>Pedicularis oederi</i>	unconfirmed	unconfirmed
Scrophulariaceae	<i>Pedicularis parviflora</i>	<i>Pedicularis parviflora</i>	unconfirmed	unconfirmed
Scrophulariaceae	<i>Penstemon gormanii</i>	<i>Penstemon gormanii</i>	unconfirmed	unconfirmed
Asteraceae	<i>Petasites frigidus var. palmatus</i>	<i>Petasites frigidus var. palmatus</i>	unconfirmed	unconfirmed
Asteraceae	<i>Petasites sagittatus</i>	<i>Petasites sagittatus</i>	unconfirmed	unconfirmed
Hydrangeaceae	<i>Philadelphus lewisii</i>	<i>Philadelphus lewisii</i>	unconfirmed	unconfirmed
Poaceae	<i>Phleum pratense</i>	<i>Phleum pratense</i>	unconfirmed	unconfirmed
Ericaceae	<i>Phyllocladus empetriformis</i>	<i>Phyllocladus empetriformis</i>	unconfirmed	present
Poaceae	<i>Poa CF PALUSTRIS L.</i>	<i>Poa palustris</i>	unconfirmed	present
Poaceae	<i>Poa lanata</i>	<i>Poa arctica ssp. lanata</i>	unconfirmed	unconfirmed
Poaceae	<i>Poa trivialis</i>	<i>Poa trivialis</i>	unconfirmed	unconfirmed
Polygonaceae	<i>Polygonum amphibium ssp. laevimarginatum</i>	<i>Polygonum amphibium ssp. Stipulaceum</i>	unconfirmed	unconfirmed
Polygonaceae	<i>Polygonum boreale</i>	<i>Polygonum boreale</i>	unconfirmed	unconfirmed
Polygonaceae	<i>Polygonum buxiforme</i>	<i>Polygonum buxiforme</i>	unconfirmed	unconfirmed
Polygonaceae	<i>Polygonum prolificum</i>	<i>Polygonum ramosissimum var. prolificum</i>	unconfirmed	unconfirmed
Salicaceae	<i>Populus balsamifera ssp. balsamifera</i>	<i>Populus balsamifera ssp. balsamifera</i>	unconfirmed	unconfirmed
Potamogetonaceae	<i>POTAMOGETON CF EPIHYDRUS RAF.</i>	<i>Potamogeton epiphydrus</i>	unconfirmed	unconfirmed
Potamogetonaceae	<i>Potamogeton filiformis var. borealis</i>	<i>Stuckenia filiformis ssp. alpinus</i>	unconfirmed	unconfirmed
Potamogetonaceae	<i>Potamogeton friesii</i>	<i>Potamogeton friesii</i>	unconfirmed	unconfirmed
Potamogetonaceae	<i>Potamogeton natans</i>	<i>Potamogeton natans</i>	unconfirmed	unconfirmed
Potamogetonaceae	<i>Potamogeton richardsonii</i>	<i>Potamogeton richardsonii</i>	unconfirmed	unconfirmed
Potamogetonaceae	<i>Potamogeton vaginatus</i>	<i>Stuckenia anserina</i>	unconfirmed	unconfirmed
Rosaceae	<i>Potentilla anserina</i>	<i>Argentina anserina</i>	unconfirmed	unconfirmed
Rosaceae	<i>Potentilla arguta ssp. convallaria</i>	<i>Potentilla arguta ssp. convallaria</i>	unconfirmed	unconfirmed
Rosaceae	<i>Potentilla diversifolia</i>	<i>Potentilla diversifolia</i>	unconfirmed	present
Rosaceae	<i>Potentilla nivea</i>	<i>Potentilla nivea</i>	unconfirmed	unconfirmed
Rosaceae	<i>Potentilla norvegica ssp. monspeliensis</i>	<i>Potentilla norvegica ssp. monspeliensis</i>	unconfirmed	unconfirmed
Rosaceae	<i>Potentilla pennsylvanica</i>	<i>Potentilla pennsylvanica</i>	unconfirmed	unconfirmed
Primulaceae	<i>Primula incana</i>	<i>Primula incana</i>	unconfirmed	unconfirmed
Poaceae	<i>Puccinellia interior</i>	<i>Puccinellia interior</i>	unconfirmed	unconfirmed
Poaceae	<i>Puccinellia nuttalliana</i>	<i>Puccinellia nuttalliana</i>	unconfirmed	unconfirmed
Pyrolaceae	<i>Pyrola grandiflora</i>	<i>Pyrola grandiflora</i>	unconfirmed	unconfirmed
Ranunculaceae	<i>Ranunculus aquatilis var. eradicatus</i>	<i>Ranunculus trichophyllus var. eradicatus</i>	unconfirmed	unconfirmed
Ranunculaceae	<i>Ranunculus cymbalaria var. cymbalaria</i>	<i>Ranunculus cymbalaria var. cymbalaria</i>	unconfirmed	unconfirmed
Ranunculaceae	<i>Ranunculus gmelinii ssp. purshii</i>	<i>Ranunculus gmelinii</i>	unconfirmed	unconfirmed
Ranunculaceae	<i>Ranunculus hyperboreus</i>	<i>Ranunculus hyperboreus</i>	unconfirmed	present
Ranunculaceae	<i>Ranunculus lapponicus</i>	<i>Ranunculus lapponicus</i>	unconfirmed	unconfirmed
Ranunculaceae	<i>Ranunculus macounii</i>	<i>Ranunculus macounii</i>	unconfirmed	unconfirmed
Ranunculaceae	<i>Ranunculus pedatifidus</i>	<i>Ranunculus pedatifidus</i>	unconfirmed	unconfirmed
Ranunculaceae	<i>RANUNCULUS PYGMAEUS WAHL.</i>	<i>Ranunculus pygmaeus</i>	unconfirmed	present

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

National Park Service 2001 Status of Vascular Plants Expected or Documented in Klondike Gold Rush National Historical Park (cont.) –

Family	Previous Name	ITIS Name	2001 IIPS Status	2001 IIPS Status
Scrophulariaceae	<i>Rhinanthus crista-galli</i>	<i>Rhinanthus minor</i> ssp. <i>minor</i>	unconfirmed	unconfirmed
Ericaceae	<i>Rhododendron lapponicum</i>	<i>Rhododendron lapponicum</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Rorippa islandica</i>	<i>Rorippa islandica</i>	unconfirmed	unconfirmed
Brassicaceae	<i>Rorippa palustris</i> ssp. <i>palustris</i>	<i>Rorippa palustris</i> ssp. <i>palustris</i>	unconfirmed	unconfirmed
Polygonaceae	<i>Rumex salicifolius</i> var. <i>salicifolius</i>	<i>Rumex salicifolius</i> var. <i>salicifolius</i>	unconfirmed	unconfirmed
Caryophyllaceae	<i>Sagina crassicaulis</i>	<i>Sagina maxima</i> ssp. <i>crassicaulis</i>	unconfirmed	unconfirmed
Salicaceae	<i>Salix alaxensis</i> var. <i>alaxensis</i>	<i>Salix alaxensis</i> var. <i>alaxensis</i>	unconfirmed	unconfirmed
Salicaceae	<i>Salix arbusculoides</i>	<i>Salix arbusculoides</i>	unconfirmed	unconfirmed
Salicaceae	<i>Salix barrattiana</i>	<i>Salix barrattiana</i>	unconfirmed	unconfirmed
Salicaceae	<i>SALIX BRACHYCARPA</i> NUTT. SSP. <i>NIPHOCLEA</i>	<i>Salix niphocleada?</i>	unconfirmed	unconfirmed
Salicaceae	<i>Salix lanata</i> ssp. <i>richardsonii</i>	<i>Salix richardsonii</i>	unconfirmed	unconfirmed
Salicaceae	<i>Salix rigida</i>	<i>Salix eriocephala</i>	unconfirmed	unconfirmed
Salicaceae	<i>Salix rotundifolia</i>	<i>Salix rotundifolia</i>	unconfirmed	unconfirmed
Asteraceae	<i>Saussurea angustifolia</i> ssp. <i>yukonensis</i>	<i>Saussurea angustifolia</i> var. <i>yukonensis</i>	unconfirmed	unconfirmed
Asteraceae	<i>Saussurea angustifolia</i> var. <i>angustifolia</i>	<i>Saussurea angustifolia</i> var. <i>angustifolia</i>	unconfirmed	unconfirmed
Saxifragaceae	<i>Saxifraga adscendens</i> ssp. <i>oregonensis</i>	<i>Saxifraga adscendens</i> ssp. <i>oregonensis</i>	unconfirmed	unconfirmed
Saxifragaceae	<i>Saxifraga nelsoniana</i> ssp. <i>porsildiana</i>	<i>Saxifraga nelsoniana</i> ssp. <i>porsildiana</i>	unconfirmed	unconfirmed
Saxifragaceae	<i>Saxifraga punctata</i>	<i>Saxifraga nelsoniana</i> ssp. <i>nelsoniana</i>	unconfirmed	unconfirmed
Saxifragaceae	<i>Saxifraga reflexa</i>	<i>Saxifraga reflexa</i>	unconfirmed	unconfirmed
Saxifragaceae	<i>Saxifraga serpyllifolia</i>	<i>Saxifraga serpyllifolia</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Scirpus rollandii</i>	<i>Trychophorum pumilum</i>	unconfirmed	unconfirmed
Cyperaceae	<i>Scirpus validus</i>	<i>Schoenoplectus tabernaemontani</i>	unconfirmed	unconfirmed
Crassulaceae	<i>Sedum lanceolatum</i>	<i>Sedum lanceolatum</i>	unconfirmed	unconfirmed
Selaginellaceae	<i>Selaginella selaginoides</i>	<i>Selaginella selaginoides</i>	unconfirmed	unconfirmed
Asteraceae	<i>Senecio atropurpureus</i> ssp. <i>frigidus</i>	<i>Tephrosia atropurpurea</i>	unconfirmed	unconfirmed
Asteraceae	<i>Senecio congestus</i>	<i>Senecio congestus</i>	unconfirmed	unconfirmed
Asteraceae	<i>Senecio lugens</i>	<i>Senecio lugens</i>	unconfirmed	unconfirmed
Asteraceae	<i>Senecio pauciflorus</i>	<i>Packera pauciflora</i>	unconfirmed	unconfirmed
Asteraceae	<i>Senecio streptanthifolius</i>	<i>Packera streptanthifolia</i>	unconfirmed	unconfirmed
Asteraceae	<i>Senecio tundricola</i>	<i>Tephrosia lindstroemii</i>	unconfirmed	unconfirmed
Caryophyllaceae	<i>Silene involucreta</i> ssp. <i>involucreta</i>	<i>Silene involucreta</i> ssp. <i>involucreta</i>	unconfirmed	unconfirmed
Caryophyllaceae	<i>Silene menziesii</i>	<i>Silene menziesii</i>	unconfirmed	unconfirmed
Caryophyllaceae	<i>Silene taimyrensis</i>	<i>Silene taimyrensis</i>	unconfirmed	unconfirmed
Asteraceae	<i>Solidago simplex</i>	<i>Solidago simplex</i>	unconfirmed	unconfirmed
Rosaceae	<i>Spiraea douglasii</i> var. <i>menziesii</i>	<i>Spiraea douglasii</i> var. <i>menziesii</i>	unconfirmed	unconfirmed
Chenopodiaceae	<i>Suaeda calceoliformis</i>	<i>Suaeda calceoliformis</i>	unconfirmed	unconfirmed
Asteraceae	<i>Taraxacum lyratum</i>	<i>Taraxacum lyratum</i>	unconfirmed	present
Brassicaceae	<i>Thellungiella salsuginea</i>	<i>Arabidopsis salsuginea</i>	unconfirmed	unconfirmed
Liliaceae	<i>Tofieldia pusilla</i>	<i>Tofieldia pusilla</i>	unconfirmed	unconfirmed
Poaceae	<i>Trisetum cernuum</i>	<i>Trisetum canescens</i>	unconfirmed	unconfirmed
Ericaceae	<i>Vaccinium alaskaense</i>	<i>Vaccinium alaskaense</i>	unconfirmed	unconfirmed
Scrophulariaceae	<i>Veronica peregrina</i> ssp. <i>xalapensis</i>	<i>Veronica peregrina</i> ssp. <i>xalapensis</i>	unconfirmed	unconfirmed
Violaceae	<i>Viola renifolia</i> var. <i>brainerdii</i>	<i>Viola renifolia</i>	unconfirmed	unconfirmed
Liliaceae	<i>Zigadenus elegans</i>	<i>Zigadenus elegans</i>	unconfirmed	unconfirmed

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

APPENDIX II

Plant Collections by Alaska Natural Heritage Program at Klondike Gold Rush National Historical Park in 2002 and 2003 -

Annotated species list describing all taxa and the basic geographic and habitat attributes.

Family	ITIS NAME	Coll #	2001 Status	Region	site #	General locality	Specific locality	Lat(dd)	Long(dd)
Ranunculaceae	<i>Aconitum delphinifolium</i> ssp. <i>delphinifolium</i>	03-166	pp	white east	224	White Pass Unit, near border	ridge 0.5 mi SE of Summit LK	59.615	135.134
Ranunculaceae	<i>Actaea rubra</i>	03-218	pres	white west	231	White Pass Unit, White Pass Fork	upper White Pass Fork, below American Shed	59.603	135.145
Poaceae	<i>Agrostis mertensii</i>	01-039	pp	Finnegans	10	Chilkoot Unit, Finnegans	near Finnegans, banks of the Taiya R.	59.577	135.332
Poaceae	<i>Agrostis mertensii</i>	03-214	pp	white east	230	White Pass Unit, maintenance shed	access road near maintenance shed at rr tracks	59.607	135.143
Poaceae	<i>Agrostis mertensii</i>	03-268	pp	dyes	253	Chilkoot Unit, Dyes	Lower Taiya River near West Creek	59.531	135.345
Asteraceae	<i>Anaphalis margaritacea</i>	01-141	pp	white south	52	White Pass Unit, near Heney	E of Heney, approx. 1 m off of tracks	59.565	135.162
Ranunculaceae	<i>Anemone narcissiflora</i> var. <i>monantha</i>	01-001	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Ranunculaceae	<i>Anemone narcissiflora</i> var. <i>monantha</i>	01-152	pres	white west	58	White Pass Unit	approx. 0.25 mi E of Klondike Hwy.	59.631	135.156
Ranunculaceae	<i>Anemone parviflora</i>	01-151	pres	white west	58	White Pass Unit	near summit, approx. 0.25 mi E of Klondike Hwy.	59.631	135.156
Asteraceae	<i>Antennaria alpina</i>	01-130	pres	long hill	46	Chilkoot Unit, Long Hill	just SE of Tension Station, E side of Taiya R. where a drainage runs	59.680	135.251
Asteraceae	<i>Antennaria alpina</i>	03-174	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Asteraceae	<i>Antennaria alpina</i>	03-255	pres	white south	248	White Pass Unit, Capt. Moore Crk.	Captain Moore Creek, ca. 150 m down from Klondike Hwy	59.568	135.194
Asteraceae	<i>Antennaria monocephala</i>	01-106	pres	scales	37	Chilkoot Unit	the summit, approx. 0.2 mi. S/W of Canadian warden cabin	59.635	135.237
Brassicaceae	<i>Arabis kamoharui</i>	01-045	pres	Finnegans	10	Chilkoot Unit, Finnegans	near Finnegans, banks of the Taiya R.	59.575	135.334
Brassicaceae	<i>Arabis kamoharui</i>	01-066	pres	w canyon c	22	Chilkoot Unit	approx. 0.5-1.0 mi S/W of historical Canyon City, N of	59.612	135.329
Brassicaceae	<i>Arabis kamoharui</i>	01-143	pres	white south	54	White Pass Unit, near Heney	approx. 0.5 mi. W of Heney, off of tracks	59.566	135.165
Brassicaceae	<i>Arabis kamoharui</i>	03-173	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Ericaceae	<i>Arctostaphylos alpina</i>	03-224	pres	white west	233	White Pass Unit, White Pass Fork	upper White Pass Fork, S/W of American Shed	59.605	135.145
Rosaceae	<i>Argemone oregonii</i>	03-237	pres	dyes	243	Chilkoot Unit, Dyes	Old Dyes warf	59.489	135.355
Asteraceae	<i>Arnica latifolia</i>	03-195	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Asteraceae	<i>Arnica lessingii</i>	03-252	pres	white south	248	White Pass Unit, Capt. Moore Crk.	Captain Moore Creek, ca. 150 m down from Klondike Hwy	59.568	135.194
Asteraceae	<i>Artemisia arctica</i>	03-196	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Brassicaceae	<i>Barbarea orthoceras</i>	01-171	pres	white east	68	White Pass Unit, near the border	E shore of Pump House Lake	59.622	135.134
Brassicaceae	<i>Barbarea orthoceras</i>	03-176	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Ophioglossaceae	<i>Botrychium lunaria</i>	01-064	pp	w canyon c	22	Chilkoot Unit	approx. 0.5-1.0 mi S/W of historical Canyon City, N of	59.612	135.329
Ophioglossaceae	<i>Botrychium lunaria</i>	01-163	pp	white east	64	White Pass Unit	approx 0.25 mi S of the 'American Shed' sign, off of tracks	59.609	135.140
Ophioglossaceae	<i>Botrychium multistidum</i>	01-067	pp	w canyon c	23	Chilkoot Unit	approx. 1-2 mi S/W of historical Canyon City & 0.25 mi N of	59.615	135.338
Poaceae	<i>Calamagrostis canadensis</i> var. <i>lansdorfii</i>	03-265	unconf	dyes	252	Chilkoot Unit, Dyes	Lower Taiya River near bridge	59.509	135.346
Ranunculaceae	<i>Callitriche leptosepala</i>	01-157	pres	white west	61	White Pass Unit	approx. 0.20 mi E of Klondike Hwy., a few miles S of summit	59.617	135.159
Ranunculaceae	<i>Callitriche leptosepala</i>	01-165	pres	white east	66	White Pass Unit, near the border	E shore of Pump House Lake	59.622	135.131
Brassicaceae	<i>Capsella bursa-pastoris</i>	03-245	pp	dyes	246	Chilkoot Unit, Dyes	Dyes road, ca. 0.5 mi from end	59.502	135.359
Brassicaceae	<i>Cardamine bellidifolia</i>	01-102	pres	long hill	34	Chilkoot Unit, Long Hill	S/W of Scales, Spike Camp site	59.687	135.247
Brassicaceae	<i>Cardamine bellidifolia</i>	03-202	pres	white east	229	White Pass Unit, American Shed	near railroad tracks at American Shed	59.612	135.143

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Plant Collections by Alaska Natural Heritage Program at Klondike Gold Rush National Historical Park in 2002 and 2003 (cont.) -

Family	ITIS NAME	Coll #	2001 Status	Region	site #	General locality	Specific locality	Lat(dd)	Long(dd)
Brassicaceae	<i>Cardamine oligosperma</i> var. <i>kamtschatica</i>	01-021	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Brassicaceae	<i>Cardamine oligosperma</i> var. <i>kamtschatica</i>	01-050	pres	Finnegans	13	Chilkoot Unit, N. of Finnegans	approx. 1-1.5 mi N of Finnegans	59.587	135.321
Cyperaceae	<i>Carex canescens</i>	01-068	pres	n canyon	24	Chilkoot Unit, Pleasant Camp	approx. 0.5 mi S of Pleasant Camp, near trail	59.630	135.304
Cyperaceae	<i>Carex canescens</i>	01-080	pres	sheep	32	Chilkoot Unit, vic. Taiya R.	W side of the Taiya R., across and below Sheep Camp	59.656	135.264
Cyperaceae	<i>Carex anthoxanthos</i>	03-168	unconf	white east	224	White Pass Unit, near border	ridge 0.5 mi SE of Summit LK	59.615	135.134
Cyperaceae	<i>Carex aquatilis</i> var. <i>dives</i>	01-088	pres	sheep	33	Chilkoot Unit, vic. Taiya R.	W side of the Taiya R., approx. 1 mi. S of Sheep Camp	59.648	135.274
Cyperaceae	<i>Carex aquatilis</i> var. <i>dives</i>	03-262	pres	dyes	252	Chilkoot Unit, Dyes	Lower Taiya River near bridge	59.509	135.346
Cyperaceae	<i>Carex brunneocens</i>	03-211	pres	white east	230	White Pass Unit, maintenance shed	access road near maintenance shed at rr tracks	59.607	135.143
Cyperaceae	<i>Carex disporma</i>	01-036	pres	w canyon c	8	Chilkoot Unit	W of Chilkoot Trail, approximately 1/8 mi N of Nourse	59.608	135.323
Cyperaceae	<i>Carex disporma</i>	01-069	pres	n canyon	25	Chilkoot Unit, Pleasant Camp	approx. 0.25 mi below Pleasant Camp	59.634	135.298
Cyperaceae	<i>Carex lachonalli</i>	01-109	pp	scales	38	Chilkoot Unit	the summit, approx. 0.5 - 1.0 mi W of Canadian warden's cabin	59.635	135.249
Cyperaceae	<i>Carex lachonalli</i>	01-167	pp	white east	68	White Pass Unit, near the border	E shore of Pump House Lake	59.622	135.134
Cyperaceae	<i>Carex lachonalli</i>	03-226	pp	white east	228	White Pass Unit, White Pass Fork	wide ridge SE of Summit LK	59.626	135.137
Cyperaceae	<i>Carex lenticularis</i> var. <i>dolla</i>	01-169	pres	white east	68	White Pass Unit, near the border	E shore of Pump House Lake	59.622	135.134
Cyperaceae	<i>Carex lenticularis</i> var. <i>dolla</i>	03-212	pres	white east	230	White Pass Unit, maintenance shed	access road near maintenance shed at rr tracks	59.607	135.143
Cyperaceae	<i>Carex lenticularis</i> var. <i>dolla</i>	01-149	pp	white west	56	White Pass Unit	near summit, approx. 0.25 mi E of Klondike Hwy.	59.630	135.156
Cyperaceae	<i>Carex lenticularis</i> var. <i>lipocarpa</i>	01-059	pres	w canyon c	19	Chilkoot Unit	approx. 0.2 mi S of Canyon City warming shelter	59.606	135.321
Cyperaceae	<i>Carex livida</i>	01-089	pp	sheep	33	Chilkoot Unit, vic. Taiya R.	W side of the Taiya R., approx. 1 mi. S of Sheep Camp	59.648	135.274
Cyperaceae	<i>Carex loliflora</i>	01-077	pp	sheep	32	Chilkoot Unit, vic. Taiya R.	W side of the Taiya R., across and below Sheep Camp	59.656	135.264
Cyperaceae	<i>Carex loliflora</i>	03-258	pp	white soutl	249	White Pass Unit, Capt. Moore Crk.	Captain Moore Creek, ca. 150 m down from Klondike Hwy	59.567	135.194
Cyperaceae	<i>Carex lyngbyei</i>	03-240	pres	dyes	244	Chilkoot Unit, Dyes	Dyes halophytic meadow	59.492	135.356
Cyperaceae	<i>Carex macrochaeta</i>	01-010	pp	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Cyperaceae	<i>Carex macrochaeta</i>	01-028	pp	w canyon c	5	Chilkoot Unit	approx. 1/8 mi W of the trail near historical Canyon City cabin	59.618	135.333
Cyperaceae	<i>Carex macrochaeta</i>	01-054	pp	w canyon c	15	Chilkoot Unit, N. of Finnegans	approx. 1.5-2 mi N of Finnegans	59.593	135.322
Cyperaceae	<i>Carex macrochaeta</i>	01-095	pp	long hill	34	Chilkoot Unit, Long Hill	S'W of Scales, Spike Camp site	59.687	135.247
Cyperaceae	<i>Carex macrochaeta</i>	01-108	pp	scales	37	Chilkoot Unit	the summit, approx. 0.2 mi S'W of Canadian warden cabin	59.635	135.237
Cyperaceae	<i>Carex macrochaeta</i>	03-194	pp	white east	224	White Pass Unit, near border	ridge 0.5 mi SE of Summit LK	59.615	135.134
Cyperaceae	<i>Carex macrochaeta</i>	03-257	pp	white soutl	248	White Pass Unit, Capt. Moore Crk.	Captain Moore Creek, ca. 150 m down from Klondike Hwy	59.568	135.194
Cyperaceae	<i>Carex macrochaeta</i>	01-060	pp	w canyon c	20	Chilkoot Unit	N of Canyon City shelter on the bank of the Taiya R.	59.608	135.321
Cyperaceae	<i>Carex mortenzii</i>	01-032	pres	w canyon c	7	Chilkoot Unit	W of Chilkoot Trail, N side of the Nourse R.	59.610	135.330
Cyperaceae	<i>Carex mortenzii</i>	01-055	pres	w canyon c	16	Chilkoot Unit	approx. 2.5 mi N of Finnegans, trail's edge near rock and wood	59.607	135.320
Cyperaceae	<i>Carex nigricans</i>	01-094	pres	long hill	34	Chilkoot Unit, Long Hill	S'W of Scales, Spike Camp site	59.688	135.247
Cyperaceae	<i>Carex nigricans</i>	01-111	pres	scales	39	Chilkoot Unit	the summit, approx. 40 m W of Canadian warden's cabin	59.637	135.234
Cyperaceae	<i>Carex norvegica</i> ssp. <i>interalpina</i>	03-267	unconf	dyes	253	Chilkoot Unit, Dyes	Lower Taiya River near West Creek	59.531	135.345
Cyperaceae	<i>Carex pochystachya</i>	01-057	pp	w canyon c	18	Chilkoot Unit	rock garden areas between Finnegans and Canyon City	59.601	135.323
Cyperaceae	<i>Carex pochystachya</i>	03-210	pp	white east	230	White Pass Unit, maintenance shed	access road near maintenance shed at rr tracks	59.607	135.143
Cyperaceae	<i>Carex pauciflora</i>	01-087	pres	sheep	33	Chilkoot Unit, vic. Taiya R.	W side of the Taiya R., approx. 1 mi. S of Sheep Camp	59.648	135.274
Cyperaceae	<i>Carex pluriflora</i>	01-083	pres	sheep	32	Chilkoot Unit, vic. Taiya R.	W side of the Taiya R., across and below Sheep Camp	59.656	135.264

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Plant Collections by Alaska Natural Heritage Program at Klondike Gold Rush National Historical Park in 2002 and 2003 (cont.) -

Family	ITIS NAME	Coll #	2001 Status	Region	site #	General locality	Specific locality	Lat(dd)	Long(dd)
Cyperaceae	<i>Carex podocarpa</i>	01-108A	pp	scales	37	Chilkoot Unit	the summit, approx. 0.2 mi. S'W of Canadian warden cabin	59.635	135.237
Cyperaceae	<i>Carex pyrenica ssp. micropoda</i>	03-232	pp	white west	238	White Pass Unit, White Pass Fork	ridge 0.5 mi S'W of Summit LK	59.625	135.152
Cyperaceae	<i>Carex saxatilis</i>	01-170	pres	white east	68	White Pass Unit, near the border	E shore of Pump House Lake	59.622	135.134
Cyperaceae	<i>Carex scirpoides</i>	01-043	pres	Finnegans	10	Chilkoot Unit, Finnegans	near Finnegans, banks of the Tsaiya R.	59.575	135.333
Cyperaceae	<i>Carex spectabilis</i>	01-093	pp	long hill	34	Chilkoot Unit, Long Hill	S'W of Scales, Spike Camp site	59.688	135.247
Scrophulariaceae	<i>Castilleja parviflora</i>	03-233	pp	white west	242	White Pass Unit, White Pass Fork	ridge 0.5 mi S'W of Summit LK	59.616	135.151
Caryophyllaceae	<i>Corastium boeringianum</i>	01-042	pp	Finnegans	10	Chilkoot Unit, Finnegans	near Finnegans, banks of the Tsaiya R.	59.576	135.332
Caryophyllaceae	<i>Corastium boeringianum</i>	03-205	pp	white east	229	White Pass Unit, American Shed	near railroad tracks at American Shed	59.612	135.143
Caryophyllaceae	<i>Corastium fontaeum</i>	03-189	pres	white south	219	White Pass Unit, Klondike HWY	Along the road near Bridal Veil Falls	59.571	135.198
Chenopodiaceae	<i>Cleonopodium sibiricum</i>	03-247	pres	dyes	246	Chilkoot Unit, Dyes	Dyes road, ca. 0.5 mi from end	59.502	135.359
Saxifragaceae	<i>Chrysosplenium tetrandrum</i>	01-049	pp	Finnegans	13	Chilkoot Unit, N. of Finnegans	approx. 1-1.5 mi N of Finnegans	59.587	135.321
Onagraceae	<i>Circea alpina</i>	03-250	pres	dyes	247	Chilkoot Unit, Dyes	Dyes road, ca. 1.5 mi from end	59.515	135.349
Portulacaceae	<i>Claytonia sarmentosa</i>	01-166	pp	white east	67	White Pass Unit, near the border	E shore of Pump House Lake	59.620	135.131
Orchidaceae	<i>Coralorrhiza trifida</i>	01-084	pres	sheep	32	Chilkoot Unit, vic. Tsaiya R.	W side of the Tsaiya R., across and below Sheep Camp	59.656	135.264
Dryopteridaceae	<i>Cystopteris fragilis</i>	01-037	pres	w canyon c	9	Chilkoot Unit	stream near Canyon City campground	59.608	135.319
Aspidiaceae	<i>Cystopteris fragilis</i>	03-227	pres	white west	235	White Pass Unit, White Pass Fork	ridge 0.5 mi S'W of Summit LK	59.625	135.141
Dryopteridaceae	<i>Cystopteris montana</i>	01-051	pp	Finnegans	13	Chilkoot Unit, N. of Finnegans	approx. 1-1.5 mi N of Finnegans	59.587	135.321
Rosaceae	<i>Dasiphora floribunda</i>	03-172	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Poaceae	<i>Deschampsia cespitosa</i>	03-244	pres	dyes	245	Chilkoot Unit, Dyes	Dyes holophytic meadow	59.500	135.361
Brassicaceae	<i>Descurainia sophioides</i>	01-147	pp	white south	54	White Pass Unit, near Heney	approx. 0.5 mi. W of Heney, off of tracks	59.565	135.164
Primulaceae	<i>Dodocathoon frigidum</i>	01-164	pp	white west	65	White Pass Unit, near the border	hills W of train tracks	59.625	135.137
Brassicaceae	<i>Draba globulata</i>	03-206	pp no r	white east	229	White Pass Unit, American Shed	near railroad tracks at American Shed	59.612	135.143
Brassicaceae	<i>Draba lonchocarpa var. lonchocarpa</i>	01-156	pp	white west	60	White Pass Unit	approx. 0.20 mi E of Klondike Hwy., a few miles S of summit	59.618	135.158
Brassicaceae	<i>Draba lonchocarpa var. lonchocarpa</i>	01-159	pp	white east	62	White Pass Unit	exposed rock face on E side of train track, S of the American	59.612	135.139
Brassicaceae	<i>Draba stenoloba</i>	03-164	pp	white west	222	White Pass Unit, near border	Border and RR tracks	59.625	135.136
Rosaceae	<i>Dryas octopetala</i>	01-153	pp	white west	59	White Pass Unit	E side of Klondike Hwy., S of summit	59.615	135.161
Cyperaceae	<i>Eleocharis kamschatkica</i>	03-242	pp no r	dyes	244	Chilkoot Unit, Dyes	Dyes holophytic meadow	59.492	135.356
Poaceae	<i>Elymus alaskanus ssp. latiglumis</i>	03-187	pres	white south	219	White Pass Unit, Klondike HWY	Along the road near Bridal Veil Falls	59.571	135.198
Onagraceae	<i>Epilobium anagallifolium</i>	01-110	pres	scales	39	Chilkoot Unit	the summit, approx. 40 m W of Canadian warden's cabin	59.697	135.234
Onagraceae	<i>Epilobium hornemannii</i>	01-024	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Onagraceae	<i>Epilobium hornemannii</i>	01-070	pres	n canyon	26	Chilkoot Unit, Pleasant Camp	Tsaiya R. bank just S of Pleasant Camp	59.635	135.292
Onagraceae	<i>Epilobium hornemannii</i>	01-131	pres	long hill	46	Chilkoot Unit, Long Hill	just SE of Tension Station, E side of Tsaiya R. where a drainage runs	59.680	135.251
Onagraceae	<i>Epilobium hornemannii</i>	03-178	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Onagraceae	<i>Epilobium lactiflorum</i>	01-041	pp	Finnegans	10	Chilkoot Unit, Finnegans	near Finnegans, banks of the Tsaiya R.	59.576	135.332
Onagraceae	<i>Epilobium lactiflorum</i>	01-052	pp	Finnegans	13	Chilkoot Unit, N. of Finnegans	approx. 1-1.5 mi N of Finnegans	59.587	135.321
Equisetaceae	<i>Equisetum pratense</i>	01-046	pres	Finnegans	11	Chilkoot Unit, Finnegans	approx. 20 m N of Finnegans on the bank of Tsaiya R.	59.576	135.330
Equisetaceae	<i>Equisetum variegatum</i>	03-229	pres	white west	236	White Pass Unit, White Pass Fork	ridge 0.5 mi S'W of Summit LK	59.625	135.145
Asteraceae	<i>Erigeron acris ssp. politus</i>	01-137	pres	white south	49	White Pass Unit, S. of Glacier Gorge	not far from train tracks	59.563	135.144

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Plant Collections by Alaska Natural Heritage Program at Klondike Gold Rush National Historical Park in 2002 and 2003 (cont.) –

Family	ITIS NAME	Coll #	2001 Status	Region	site #	General locality	Specific locality	Lat(dd)	Long(dd)
Asteraceae	<i>Erigeron acris ssp. politus</i>	03-162	pres	white south	213	White Pass Unit, Klondike HWY	Along the road near Bridal Veil Falls	59.571	135.198
Asteraceae	<i>Erigeron acris ssp. politus</i>	03-180	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Asteraceae	<i>Erigeron humilis</i>	01-160	pres	white east	62	White Pass Unit	exposed rock face on E side of train track, S of the American Shed	59.612	135.139
Asteraceae	<i>Erigeron humilis</i>	03-199	pres	white east	229	White Pass Unit, American Shed	near railroad tracks at American Shed	59.612	135.143
Asteraceae	<i>Erigeron peregrinus</i>	01-093	pres	long hill	34	Chilkoot Unit, Long Hill	S'W of Scales, Spike Camp site	59.687	135.248
Asteraceae	<i>Erigeron peregrinus</i>	01-119	pres	long hill	43	Chilkoot Unit, Long Hill	approx. 0.2 mi. S of the Tension Station, W of Taiya R.	59.681	135.251
Cyperaceae	<i>Eriophorum angustifolium ssp. scabriusculum</i>	01-081	pres	sheep	32	Chilkoot Unit, vic. Taiya R.	W side of the Taiya R., across and below Sheep Camp	59.656	135.264
Cyperaceae	<i>Eriophorum angustifolium ssp. scabriusculum</i>	01-090	pres	sheep	33	Chilkoot Unit, vic. Taiya R.	W side of the Taiya R., approx. 1 mi. S of Sheep Camp	59.648	135.274
Cyperaceae	<i>Eriophorum angustifolium ssp. scabriusculum</i>	03-171	pres	white east	225	White Pass Unit, near border	wide ridge SE of Summit LK	59.615	135.130
Cyperaceae	<i>Eriophorum russocolum var. majus</i>	01-078	pp	sheep	32	Chilkoot Unit, vic. Taiya R.	W side of the Taiya R., across and below Sheep Camp	59.656	135.264
Scrophulariaceae	<i>Euphrasia disjuncta</i>	01-140	pp	white south	51	White Pass Unit, Slippery Rock	off of tracks at Slippery Rock	59.567	135.144
Scrophulariaceae	<i>Euphrasia nemorosa</i>	01-173	pp	dyea	69	Chilkoot Unit, Dyea	slough N of the tidal flats	59.503	135.354
Poaceae	<i>Festuca brachyphylla</i>	01-071	pres	n canyon	26	Chilkoot Unit, Pleasant Camp	Taiya R. bank just S of Pleasant Camp	59.635	135.292
Poaceae	<i>Festuca brachyphylla</i>	01-135	pres	white south	49	White Pass Unit, S. of Glacier Gorge	not far from train tracks	59.569	135.144
Poaceae	<i>Festuca brachyphylla</i>	03-220	pres	white west	232	White Pass Unit, White Pass Fork	upper White Pass Fork, S'W of American Shed	59.605	135.149
Poaceae	<i>Festuca richardsonii</i>	03-241	pres	dyea	244	Chilkoot Unit, Dyea	Dyea halophytic meadow	59.492	135.356
Poaceae	<i>Festuca rubra</i>	01-030	pres	w canyon c	7	Chilkoot Unit	W of Chilkoot Trail, N side of the Nourse R.	59.610	135.330
Rosaceae	<i>Fragaria chiloensis</i>	01-176	pres	dyea	71	Chilkoot Unit, Dyea	near Taiya R. bank at campground	59.508	135.347
Lamiaceae	<i>Galopsis bifida</i>	01-144	pp	white south	54	White Pass Unit, near Honey	approx. 0.5 mi. W of Honey, off of tracks	59.566	135.165
Gentianaceae	<i>Gentiana glauca</i>	01-098	pp	long hill	34	Chilkoot Unit, Long Hill	S'W of Scales, Spike Camp site	59.687	135.248
Gentianaceae	<i>Gentiana glauca</i>	03-225	pp	white west	234	White Pass Unit, White Pass Fork	upper White Pass Fork, S'W of American Shed	59.609	135.149
Rosaceae	<i>Geum calthifolium</i>	01-085	pres	sheep	33	Chilkoot Unit, vic. Taiya R.	W side of the Taiya R., approx. 1 mi. S of Sheep Camp	59.648	135.274
Primulaceae	<i>Gloxia maritima</i>	03-236	pres	dyea	243	Chilkoot Unit, Dyea	Old Dyea wharf	59.489	135.355
Ericaceae	<i>Harrimanella stelleriana</i>	01-003	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Saxifragaceae	<i>Hewitsonia glabra</i>	03-253	pres	white south	248	White Pass Unit, Capt. Moore Crk.	Captain Moore Creek, ca. 150 m down from Klondike Hwy	59.568	135.194
Asteraceae	<i>Microrhizon triste</i>	01-113	pres	scales	40	Chilkoot Unit	the summit, just off trail near warming hut	59.698	135.233
Poaceae	<i>Hordeum brachyantherum</i>	01-031	pres	w canyon c	7	Chilkoot Unit	W of Chilkoot Trail, N side of the Nourse R.	59.610	135.330
Poaceae	<i>Hordeum brachyantherum</i>	01-134	pres	white south	49	White Pass Unit, S. of Glacier Gorge	not far from train tracks	59.569	135.144
Lycopodiaceae	<i>Hyperzia selago</i>	01-007	pp	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Juncaceae	<i>Juncus arcticus</i>	03-207	pres	white east	230	White Pass Unit, maintenance shed	access road near maintenance shed at rr tracks	59.607	135.143
Juncaceae	<i>Juncus balticus var. montanus</i>	01-073	pp	n canyon	28	Chilkoot Unit	approx. 1.5 mi N of Canyon City	59.620	135.322
Juncaceae	<i>Juncus biglumis</i>	01-150	pres	white west	57	White Pass Unit	near summit, approx. 0.25 - 0.50 mi. E of Klondike Hwy.	59.630	135.154
Juncaceae	<i>Juncus biglumis</i>	03-208	pres	white east	230	White Pass Unit, maintenance shed	access road near maintenance shed at rr tracks	59.607	135.143
Juncaceae	<i>Juncus bufonius</i>	03-263	pres	dyea	252	Chilkoot Unit, Dyea	Lower Taiya River near bridge	59.509	135.346
Juncaceae	<i>Juncus castaneus</i>	01-044	pp	Finnegans	10	Chilkoot Unit, Finnegans	near Finnegans, banks of the Taiya R.	59.575	135.333
Juncaceae	<i>Juncus castaneus</i>	01-168	pp	white east	68	White Pass Unit, near the border	E shore of Pump House Lake	59.622	135.134
Juncaceae	<i>Juncus drummondii</i>	01-097	pres	long hill	34	Chilkoot Unit, Long Hill	S'W of Scales, Spike Camp site	59.687	135.246
Juncaceae	<i>Juncus mertensianus</i>	01-103	pres	long hill	35	Chilkoot Unit, Long Hill	S'W of Scales, Spike Camp site	59.688	135.244

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Plant Collections by Alaska Natural Heritage Program at Klondike Gold Rush National Historical Park in 2002 and 2003 (cont.) –

Family	ITIS NAME	Coll #	2001 Status	Region	site #	General locality	Specific locality	Lat(dd)	Long(dd)
Juncaceae	<i>Juncus mertensianus</i>	03-203	pres	white east	230	White Pass Unit, maintenance shed	access road near maintenance shed at rr tracks	59.607	135.143
Cupressaceae	<i>Juniperus communis</i>	01-117	pp	long hill	42	Chilkoot Unit, Long Hill	approx. 0.2 mi. S of the Tension Station, W of Taiya R.	59.681	135.251
Ericaceae	<i>Kalmia polifolia</i>	01-175	pp	white west	70	White Pass Unit	approx. 50 m S of repeater, W of railroad tracks	59.596	135.163
Ranunculaceae	<i>Kumliania coolyana</i>	01-014	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Fabaceae	<i>Lotyrus japonicus var. maritimus</i>	03-239	pres	dyes	243	Chilkoot Unit, Dyes	Old Dyes warf	59.489	135.355
Asteraceae	<i>Leucanthemum vulgare</i>	03-243	pres	dyes	247	Chilkoot Unit, Dyes	Dyes road, ca. 1.5 mi from end	59.515	135.349
Ericaceae	<i>Loiseleuria procumbens</i>	01-008	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Fabaceae	<i>Lupinus nootkatensis</i>	01-005	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Fabaceae	<i>Lupinus nootkatensis</i>	03-230	pres	white west	237	White Pass Unit, White Pass Fork	ridge 0.5 mi S'W of Summit LK	59.625	135.148
Fabaceae	<i>Lupinus polyphyllus</i>	01-025	pp	dyes	2	Chilkoot Unit, Dyes	W. branch of Taiya R. flood plain, just before bridge crossing, near S'W of Scales, Spike Camp site	59.508	135.347
Juncaceae	<i>Lucula arcuata ssp. unalascensis</i>	01-036	pp	long hill	34	Chilkoot Unit, Long Hill		59.687	135.247
Juncaceae	<i>Lucula spicata</i>	01-136	pres	white south	43	White Pass Unit, S. of Glacier Gorge	not far from train tracks	59.569	135.144
Juncaceae	<i>Lucula wahlenbergii ssp. pipari</i>	03-186	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Lycopodiaceae	<i>Lycopodium detatoides</i>	01-056	pp	n canyon	17	Chilkoot Unit	W of Canyon City trail crew cabin	59.616	135.319
Liliaceae	<i>Melvinthomum dilatatum</i>	01-026	pp	dyes	3	Chilkoot Unit, West Cr.	near park boundary, 30 m up small trail located in turn around	59.533	135.396
Orchidaceae	<i>Mitella diphylla</i>	03-251	uncoaf	dyes	247	Chilkoot Unit, Dyes	Dyes road, ca. 1.5 mi from end	59.515	135.349
Asteraceae	<i>Mitricaria discoides</i>	01-146	pres	white south	54	White Pass Unit, near Heney	approx. 0.5 mi. W of Heney, off of tracks	59.565	135.164
Caryophyllaceae	<i>Miwurta macrocarpa</i>	01-072	pp	n canyon	27	Chilkoot Unit, Pleasant Camp	Taiya R. bar	59.638	135.290
Saxifragaceae	<i>Mitella pentandra</i>	03-198	pres	white east	227	White Pass Unit, near NE border	Eastern fork of White Pass River	59.613	135.101
Monotropaceae	<i>Monotropa hypopitys</i>	01-053	pres	Finnegans	14	Chilkoot Unit, N. of Finnegans	approx. 1.5 mi N of Finnegans	59.588	135.322
Apiaceae	<i>Osmorhiza depauperata</i>	01-062	pp	w canyon c	21	Chilkoot Unit	S'W of trail leading to historical Canyon City	59.609	135.321
Polygonaceae	<i>Oxyria digyna</i>	01-022	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Polygonaceae	<i>Oxyria digyna</i>	03-191	pres	white east	224	White Pass Unit, near border	ridge 0.5 mi SE of Summit LK	59.615	135.134
Fabaceae	<i>Oxytropis campestris var. varians</i>	03-188	pres	white south	219	White Pass Unit, Klondike HWY	Along the road near Bridal Veil Falls	59.571	135.198
Saxifragaceae	<i>Parnassia kotzebuei</i>	01-048	pp	Finnegans	13	Chilkoot Unit, N. of Finnegans	approx. 1-1.5 mi N of Finnegans	59.587	135.321
Saxifragaceae	<i>Parnassia kotzebuei</i>	01-132	pp	long hill	47	Chilkoot Unit, Long Hill	just NW of Tension Station, on W side of trail	59.684	135.246
Saxifragaceae	<i>Parnassia kotzebuei</i>	01-172	pp	white east	68	White Pass Unit, near the border	E shore of Pump House Lake	59.624	135.133
Saxifragaceae	<i>Parnassia palustris</i>	01-174	pres	dyes	69	Chilkoot Unit, Dyes	slough N of the tidal flats	59.503	135.354
Scrophulariaceae	<i>Podicularis capitata</i>	01-129	pp	long hill	46	Chilkoot Unit, Long Hill	just SE of Tension Station, E side of Taiya R. where a drainage runs	59.680	135.247
Scrophulariaceae	<i>Podicularis capitata</i>	01-016	pp	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Asteraceae	<i>Petasites frigidus</i>	01-018	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Asteraceae	<i>Petasites frigidus var. nivalis</i>	03-228	pres	white west	236	White Pass Unit, White Pass Fork	ridge 0.5 mi S'W of Summit LK	59.625	135.145
Poaceae	<i>Phalaris arundinacea</i>	03-264	pres	dyes	252	Chilkoot Unit, Dyes	Lower Taiya River near bridge	59.509	135.346
Poaceae	<i>Phleum alpinum</i>	01-035	pres	w canyon c	7	Chilkoot Unit	Nourse R., W of Chilkoot Trail, N side of the Nourse R.	59.608	135.326
Ericaceae	<i>Phyllocladus empetriformis</i>	03-175	uncoaf	white east	227	White Pass Unit, near NE border	Eastern fork of White Pass River	59.613	135.101
Ericaceae	<i>Phyllocladus glandulifera</i>	03-234	pres	white west	242	White Pass Unit, White Pass Fork	ridge 0.5 mi S'W of Summit LK	59.616	135.151
Lentibulariaceae	<i>Pinguicula vulgaris</i>	01-138	pp	white south	50	White Pass Unit, Slippery Rock	off of tracks at Slippery Rock	59.568	135.145
Plantaginaceae	<i>Plantago major</i>	01-145	pres	white south	54	White Pass Unit, near Heney	approx. 0.5 mi. W of Heney, off of tracks	59.566	135.165

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Plant Collections by Alaska Natural Heritage Program at Klondike Gold Rush National Historical Park in 2002 and 2003 (cont.) –

Family	ITIS NAME	Coll #	2001 Status	Region	site #	General locality	Specific locality	Lat(dd)	Long(dd)
Plantaginaceae	<i>Plantago maritima</i>	03-238	pres	dyes	243	Chilkoot Unit, Dyes	Old Dyes wharf	59.489	135.355
Orchidaceae	<i>Platanthera obtusata</i>	03-261	pres	dyes	251	Chilkoot Unit, Dyes	Lower Taiya River near bridge	59.567	135.194
Poaceae	<i>Poa</i>	01-033	pres	w canyon c	7	Chilkoot Unit	'W of Chilkoot Trail, N side of the Nourse R.	59.610	135.330
Poaceae	<i>Poa alpina</i>	03-177	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Poaceae	<i>Poa alpina</i>	01-127	pres	long hill	46	Chilkoot Unit, Long Hill	just SE of Tension Station, E side of Taiya R. where a drainage runs	59.681	135.250
Poaceae	<i>Poa arctica ssp. arctica</i>	01-128	pp	long hill	46	Chilkoot Unit, Long Hill	just SE of Tension Station, E side of Taiya R. where a drainage runs	59.681	135.250
Poaceae	<i>Poa glauca</i>	01-034	pp	w canyon c	7	Chilkoot Unit	Nourse R., 'W of Chilkoot Trail, N side of the Nourse R.	59.608	135.326
Poaceae	<i>Poa palustris</i>	03-266	unconf	dyes	252	Chilkoot Unit, Dyes	Lower Taiya River near bridge	59.509	135.346
Poaceae	<i>Poa pratensis ssp. pratensis</i>	01-058	pp	w canyon c	18	Chilkoot Unit	rock garden area between Finnegan and Canyon City	59.601	135.324
Polemoniaceae	<i>Polemonium pulcherrimum</i>	01-063	pres	w canyon c	21	Chilkoot Unit	S'W of trail leading to historical Canyon City	59.609	135.321
Polemoniaceae	<i>Polemonium pulcherrimum</i>	01-148	pres	white south	55	White Pass Unit, near Heney	N of Heney	59.563	135.156
Polemoniaceae	<i>Polemonium pulcherrimum</i>	03-185	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Polygonaceae	<i>Polygonum viviparum</i>	01-027	pres	dyes	4	Chilkoot Unit, Dyes	near bank of Taiya R. at campground	59.508	135.347
Polypodiaceae	<i>Polypodium glycyrrhiza</i>	01-029	pres	w canyon c	6	Chilkoot Unit	approx. 1/8 mi 'W of the trail near historical Canyon City cabin	59.612	135.336
Dryopteridaceae	<i>Polystichum braunii</i>	01-061	pp	w canyon c	21	Chilkoot Unit	S'W of trail leading to historical Canyon City	59.609	135.321
Dryopteridaceae	<i>Polystichum lonchitis</i>	01-020	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Rosaceae	<i>Potentilla diversifolia</i>	03-173	unconf	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Rosaceae	<i>Potentilla nana</i>	03-200	pp	white east	229	White Pass Unit, American Shed	near railroad tracks at American Shed	59.612	135.143
Rosaceae	<i>Potentilla uniflora</i>	03-201	pp	white east	229	White Pass Unit, American Shed	near railroad tracks at American Shed	59.612	135.143
Poaceae	<i>Puccinellia nutkaensis</i>	03-235	pres	dyes	243	Chilkoot Unit, Dyes	Old Dyes wharf	59.489	135.355
Pyrolaceae	<i>Pyrola minor</i>	01-004	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Ranunculaceae	<i>Ranunculus eschscholtzii</i>	01-011	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Ranunculaceae	<i>Ranunculus eschscholtzii</i>	01-013	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Ranunculaceae	<i>Ranunculus hyperboreus</i>	03-259	unconf	dyes	251	Chilkoot Unit, Dyes	Lower Taiya River near bridge	59.567	135.194
Ranunculaceae	<i>Ranunculus nivalis</i>	01-012	pp	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Ranunculaceae	<i>Ranunculus pygmaeus</i>	03-231	unconf	white west	238	White Pass Unit, White Pass Fork	ridge 0.5 mi S'W of Summit LK	59.625	135.152
Polygonaceae	<i>Ritcum rhabarbarum</i>	03-246	pp no r	dyes	246	Chilkoot Unit, Dyes	Dyes road, ca. 0.5 mi from end	59.502	135.359
Crossulaceae	<i>Rhodiola integrifolia</i>	01-002	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Crossulaceae	<i>Rhodiola integrifolia</i>	03-222	pres	white west	233	White Pass Unit, White Pass Fork	upper White Pass Fork, S'W of American Shed	59.605	135.145
Grossulariaceae	<i>Ribes hudsonianum</i>	01-075	pp	sheep	30	Chilkoot Unit, Long Hill	approx. 1 mi N of Interpretive Cabin above ranger's cabin at	59.663	135.257
Grossulariaceae	<i>Ribes laxiflorum</i>	03-217	pres	white west	231	White Pass Unit, White Pass Fork	upper White Pass Fork, below American Shed	59.603	135.145
Hydrophyllaceae	<i>Romanoffia sitchensis</i>	01-076	pres	sheep	31	Chilkoot Unit, Long Hill	approx. 1 mi N of Interpretive Cabin near Sheep Camp	59.660	135.263
Rosaceae	<i>Rubus arcticus ssp. stollatus</i>	03-167	pres	white east	224	White Pass Unit, near border	ridge 0.5 mi SE of Summit LK	59.615	135.134
Rosaceae	<i>Rubus chamaemorus</i>	03-216	pres	white west	231	White Pass Unit, White Pass Fork	upper White Pass Fork, below American Shed	59.603	135.145
Caryophyllaceae	<i>Sagina nivalis</i>	01-161	pp	white east	62	White Pass Unit	exposed rock face on E side of train track, S of the American	59.612	135.139
Caryophyllaceae	<i>Sagina nivalis</i>	03-182B	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Caryophyllaceae	<i>Sagina saginoides</i>	03-182A	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Salicaceae	<i>Salix arctica</i>	01-015	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Plant Collections by Alaska Natural Heritage Program at Klondike Gold Rush National Historical Park in 2002 and 2003 (cont.) –

Family	ITIS NAME	Coll #	2001 Status	Region	site #	General locality	Specific locality	Lat(dd)	Long(dd)
Salicaceae	<i>Salix arctica</i>	01-017	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Salicaceae	<i>Salix arctica</i>	01-023	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Salicaceae	<i>Salix borealyi</i>	01-038	pres	Finnegans	10	Chilkoot Unit, Finnegans	near Finnegans, banks of the Taiya R.	59.577	135.332
Salicaceae	<i>Salix borealyi</i>	01-082	pres	sheep	32	Chilkoot Unit, vic. Taiya R.	W side of the Taiya R., across and below Sheep Camp	59.656	135.264
Salicaceae	<i>Salix borealyi</i>	01-133	pres	long hill	48	Chilkoot Unit, Long Hill	approx. 0.25 mi S of Tension Station	59.680	135.251
Salicaceae	<i>Salix commutata</i>	03-197	pres	white east	227	White Pass Unit, near NE border	Eastern fork of White Pass River	59.613	135.101
Salicaceae	<i>Salix glauca</i>	03-190	pres	white south	219	White Pass Unit, Klondike HWY	Along the road near Bridal Veil Falls	59.571	135.198
Salicaceae	<i>Salix myrtillofolia</i>	01-120	pp	long hill	43	Chilkoot Unit, Long Hill	approx. 0.2 mi. S of the Tension Station, W of Taiya R.	59.681	135.251
Salicaceae	<i>Salix myrtillofolia</i>	01-122	pres	long hill	43	Chilkoot Unit, Long Hill	approx. 0.2 mi. S of the Tension Station, W of Taiya R.	59.681	135.251
Salicaceae	<i>Salix ovalifolia</i>	01-091	pres	long hill	34	Chilkoot Unit, Long Hill	SW of Scales, Spike Camp site	59.688	135.247
Salicaceae	<i>Salix ovalifolia</i>	01-092	pres	long hill	34	Chilkoot Unit, Long Hill	SW of Scales, Spike Camp site	59.688	135.247
Salicaceae	<i>Salix ovalifolia</i>	01-124	pres	long hill	45	Chilkoot Unit, Long Hill	approx. 1 m S of Tension Station	59.683	135.249
Salicaceae	<i>Salix reticulata</i>	01-019	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Salicaceae	<i>Salix sitchonensis</i>	01-121	pp	long hill	43	Chilkoot Unit, Long Hill	approx. 0.2 mi. S of the Tension Station, W of Taiya R.	59.681	135.251
Salicaceae	<i>Salix stolonifera</i>	03-223	pres	white west	233	White Pass Unit, White Pass Fork	upper White Pass Fork, SW of American Shed	59.605	135.145
Rosaceae	<i>Sanguisorba canadensis</i>	03-254	pres	white south	248	White Pass Unit, Capt. Moore Crk.	Captain Moore Creek, ca. 150 m down from Klondike Hwy	59.568	135.194
Saxifragaceae	<i>Saxifraga bronchialis</i>	03-184	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Saxifragaceae	<i>Saxifraga caespitosa</i>	01-158	pp	white east	62	White Pass Unit	exposed rock face on E side of train track, S of the American Shed	59.612	135.133
Saxifragaceae	<i>Saxifraga cernua</i>	01-115	pp	scales	41	Chilkoot Unit	half way up the Golden Staircase	59.692	135.238
Saxifragaceae	<i>Saxifraga ferruginea</i>	03-183	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Saxifragaceae	<i>Saxifraga mertensiana</i>	03-169	pres	white east	224	White Pass Unit, near border	ridge 0.5 mi SE of Summit LK	59.615	135.134
Saxifragaceae	<i>Saxifraga nelsoniana</i>	01-105	pres	scales	36	Chilkoot Unit	Scales, just off the trail	59.691	135.240
Saxifragaceae	<i>Saxifraga oppositifolia</i>	01-155	pres	white west	60	White Pass Unit	approx. 0.20 mi E of Klondike Hwy., a few miles S of summit	59.618	135.159
Saxifragaceae	<i>Saxifraga oppositifolia</i>	01-162	pres	white east	63	White Pass Unit	exposed rock face on E side of train track, S of the American Shed	59.611	135.140
Saxifragaceae	<i>Saxifraga oppositifolia</i>	03-204	pres	white east	229	White Pass Unit, American Shed	near railroad tracks at American Shed	59.612	135.143
Saxifragaceae	<i>Saxifraga rivularis</i>	01-104	pres	scales	36	Chilkoot Unit	Scales, just off the trail	59.691	135.240
Saxifragaceae	<i>Saxifraga rivularis</i>	01-107	pres	scales	37	Chilkoot Unit	the summit, approx. 0.2 mi. SW of Canadian warden cabin	59.695	135.237
Saxifragaceae	<i>Saxifraga rivularis</i>	03-203	pres	white east	229	White Pass Unit, American Shed	near railroad tracks at American Shed	59.612	135.143
Saxifragaceae	<i>Saxifraga tenax</i>	01-114	pp	scales	41	Chilkoot Unit	half way up the Golden Staircase	59.692	135.238
Rosaceae	<i>Sibbaldia procumbens</i>	03-181	pres	white east	226	White Pass Unit, near border	wide ridge SE of Summit LK	59.616	135.118
Asteraceae	<i>Solidago multiradiata</i>	01-139	pres	white south	50	White Pass Unit, Slippery Rock	off of tracks at Slippery Rock	59.568	135.145
Asteraceae	<i>Solidago multiradiata</i>	03-221	pres	white west	233	White Pass Unit, White Pass Fork	upper White Pass Fork, SW of American Shed	59.605	135.145
Rosaceae	<i>Sorbus sitchonensis</i>	03-215	pres	white west	231	White Pass Unit, White Pass Fork	upper White Pass Fork, below American Shed	59.603	135.145
Sparganiaceae	<i>Sparganium angustifolium</i>	03-243	pres	dyes	245	Chilkoot Unit, Dyes	Dyes, edge of halophytic meadow	59.500	135.361
Rosaceae	<i>Spiraea stolonii</i>	03-219	pres	white west	231	White Pass Unit, White Pass Fork	upper White Pass Fork, below American Shed	59.603	135.145
Caryophyllaceae	<i>Stellaria borealis ssp. borealis</i>	01-040	pres	Finnegans	10	Chilkoot Unit, Finnegans	near Finnegans, banks of the Taiya R.	59.577	135.332
Caryophyllaceae	<i>Stellaria borealis ssp. sitchana</i>	03-165	pres	white west	222	White Pass Unit, near border	Border and RR tracks	59.625	135.136
Caryophyllaceae	<i>Stellaria borealis ssp. sitchana</i>	03-260	pres	dyes	251	Chilkoot Unit, Dyes	Lower Taiya River near bridge	59.567	135.194

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

Plant Collections by Alaska Natural Heritage Program at Klondike Gold Rush National Historical Park in 2002 and 2003 (cont.) –

Family	ITIS NAME	Coll #	2001 Status	Region	site #	General locality	Specific locality	Lat(dd)	Long(dd)
Caryophyllaceae	<i>Stellaria calycantha</i>	01-112	pp	scales	40	Chilkoot Unit	the summit, just off trail near warming hut	59.636	135.233
Caryophyllaceae	<i>Stellaria longipes</i>	01-154	pp	white west	53	White Pass Unit	E side of Klondike Hwy., S of summit	59.615	135.161
Caryophyllaceae	<i>Stellaria media</i>	03-248	pres	dyes	246	Chilkoot Unit, Dyes	Dyes road, ca. 0.5 mi from end	59.502	135.359
Asteraceae	<i>Taraxacum lyrotum</i>	03-163	unconf	white west	222	White Pass Unit, near border	Border and RR tracks	59.625	135.136
Asteraceae	<i>Taraxacum phymatocarpum</i>	01-100	pp	long hill	34	Chilkoot Unit, Long Hill	S'w of Scales, Spike Camp site	59.688	135.249
Saxifragaceae	<i>Tollima grandiflora</i>	01-047	pp	Finnegans	12	Chilkoot Unit, Finnegans	approx. 0.5 mi N of Finnegans	59.584	135.321
Liliaceae	<i>Tofieldia coccinea</i>	01-126	pres	long hill	46	Chilkoot Unit, Long Hill	just SE of Tension Station, E side of Taiya R. where a drainage runs	59.681	135.250
Cyperaceae	<i>Trichophorum caespitosum</i>	01-086	pres	sheep	33	Chilkoot Unit, vic. Taiya R.	'w side of the Taiya R., approx. 1 mi. S of Sheep Camp	59.648	135.274
Cyperaceae	<i>Trichophorum caespitosum</i>	01-118	pres	long hill	43	Chilkoot Unit, Long Hill	approx. 0.2 mi. S of the Tension Station, W of Taiya R.	59.681	135.251
Cyperaceae	<i>Trichophorum caespitosum</i>	03-170	pres	white east	225	White Pass Unit, near border	wide ridge SE of Summit LK	59.615	135.130
Poaceae	<i>Trisetum spicatum</i>	01-125	pres	long hill	46	Chilkoot Unit, Long Hill	just SE of Tension Station, E side of Taiya R. where a drainage runs	59.681	135.250
Poaceae	<i>Trisetum spicatum</i>	01-101	pres	long hill	34	Chilkoot Unit, Long Hill	S'w of Scales, Spike Camp site	59.688	135.249
Poaceae	<i>Trisetum spicatum</i>	03-256	pres	white south	248	White Pass Unit, Capt. Moore Crk.	Captain Moore Creek, ca. 150 m down from Klondike Hwy	59.568	135.194
Ericaceae	<i>Vaccinium uliginosum</i>	01-009	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Poaceae	<i>Vahlstedtia atropurpurea</i>	01-123	pres	long hill	44	Chilkoot Unit, Long Hill	approx. 0.2 mi. S of the Tension Station, W of Taiya R.	59.681	135.251
Poaceae	<i>Vahlstedtia atropurpurea</i>	03-213	pres	white east	230	White Pass Unit, maintenance shed	access road near maintenance shed at rr tracks	59.607	135.143
Scrophulariaceae	<i>Veronica americana</i>	01-142	pp	white south	53	White Pass Unit, near Heney	S side of Skagway R. and approx. 0.2 mi E of telephone line going	59.561	135.157
Scrophulariaceae	<i>Veronica wormskjoldii</i>	01-116	pres	scales	41	Chilkoot Unit	half way up the Golden Staircase	59.692	135.238
Scrophulariaceae	<i>Veronica wormskjoldii</i>	03-193	pres	white east	224	White Pass Unit, near border	ridge 0.5 mi SE of Summit LK	59.615	135.134
Violaceae	<i>Viola spitskii</i>	01-074	pres	sheep	29	Chilkoot Unit, vic. Taiya R.	just W of Sheep Camp	59.652	135.267
Violaceae	<i>Viola spitskii</i>	01-079	pres	sheep	32	Chilkoot Unit, vic. Taiya R.	'w side of the Taiya R., across and below Sheep Camp	59.656	135.264
Violaceae	<i>Viola longsdorffii</i>	01-006	pres	white west	1	White Pass Unit	E side of Klondike Hwy., a few miles S of the Canadian border	59.615	135.165
Violaceae	<i>Viola longsdorffii</i>	03-192	pres	white east	224	White Pass Unit, near border	ridge 0.5 mi SE of Summit LK	59.615	135.134

APPENDIX III**Rare Plant Species List for Klondike Gold Rush National Historical Park -***Phyllodoce empetriformis* (Sm) D. Don. (G4-S1):

Pink mountain-heather is a low, matted, evergreen shrub of mesic, acidic soils in montane and alpine habitats. The leaves are needlelike and shiny; the flowers are rose-pink nodding, and open rather than constricted at the mouth like *P. caerulea* and *P. glanduliflora*. The range of this species is Cordilleran, occurring in isolated populations from the mountains of California and Wyoming northwest through Washington and British Columbia. The species enters Alaska only at the head of Lynn Canal. While the range of pink mountain-heather is not particularly narrow, populations are restricted to a specific and uncommon high-elevation habitat type. The Washington National Heritage Program identifies two community types composed of *P. empetriformis* as being “high-quality or rare habitat”.

Four collections of *P. empetriformis* are reliably known from Alaska and these are clustered in mountains along the Klehini River near Haines. One collection is from a nunatak on the Juneau Icefield, the east side of Taku Towers. Beschel collected the specimen in 1965 and stated that it was the only one seen on the Juneau Icefield (AKNHP database 2003). There are a few historic collections (e.g., Bolton 1898, cited in Hultén 1941-1950), likely on the Canadian side, from the White Pass - Summit Lake area.

The population in KLGO, was estimated at 100 individuals and covered a small area of 100 m². *Phyllodoce empetriformis* was growing along the banks of the eastern drainage of the White Pass Fork between ericaceous tundra (*Empetrum nigrum*, *Harrimanella stellariana*) and low *Salix commutata* along the stream bank. The location was 59.613° N, 135.101° W at 1028 m elevation.

Eleocharis kamtschatica (C.A. Mey.) Kamarov (G4-S2S3):

Kamtchatka spike rush is coastal and saline marsh species of northern Japan, Kamtchatka, Alaska, B.C. and disjunct to Hudson Bay and the Saint Lawrence River. This species appears to be rare everywhere (Hultén 1941-1950) and is listed by the AKNHP as G4-S2S3.

This species is loosely stoloniferous. The culms are tufted and up to 30 cm tall. Spikes are terminal with a large basal scale that completely encircles the base of the spike. A tubercle nearly the size of the achene and bright purplish-brown stem bases separate *E. kamtschatica* from the more widespread, *E. uniglumis*.

This species has been collected at a range of locations in Alaska, from moist sedge meadows along the Norton Sound coast (near Unalakleet airport), to coastal marshes in southcentral Alaska (e.g., Kachemak Bay) and southeast Alaska (Haines airport, Katzechin River delta and near Ketchikan). Our collection in Dyea (59.492° N, 135.356° W at 12 m elevation) was from a similar habitat to most Kamchatka spike rush sites, i.e., a small wet depression in a halophytic sedge meadow.

Saxifraga occidentalis S. Wats. (G5-S1):

Despite attempts to relocate a population of the regionally rare Western saxifrage (*Saxifraga occidentalis*), we did not observe this species in KLGO. Rector collected this rare Alaskan species along the Taiya River in 1995 (ALA Database 2004). Western saxifrage is a robust plant

with a branched inflorescence and leaves longer than broad, which is quite common along seasonally moist drainages from British Columbia south along both sides of the Cascades to Oregon, Idaho, and Nevada. However, only two collections are known from Alaska (Taiya River, KLGO and near Ketchikan).

APPENDIX IV

List of Alaska Natural Heritage Program rare plant ranks –

Species Global Rankings

- G1: Critically imperiled globally.
 G2: Imperiled globally.
 G3: Rare or uncommon globally.
 G4: Apparently secure globally, but cause for long-term concern.
 G5: Demonstrably secure globally.
 G?: Unranked.
 G#G#: Global rank of species uncertain, best described as a range between the two ranks.
 G#Q: Taxonomically questionable.
 G#T#: Global rank of species and global rank of the described variety or subspecies of the species.
 GU: Unrankable.
 GH: Historical Occurrence.
 GX: Extinct.
 HYB: Hybrid.

Species State Rankings

- S1: Critically imperiled in state.
 S2: Imperiled in state.
 S3: Rare or uncommon in state.
 S4: Apparently secure in state, but with cause for long-term concern.
 S5: Demonstrably secure in state.
 S#S#: State rank of species uncertain, best described as a range between the two ranks.
 S?: Unranked.
 SU: Unrankable.
 SA: Accidental.
 SR: Reported from the state, but not yet verified.
 SRF: Reported falsely.
 SP: Potential to occur in the state.
 HYB: Hybrid.

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY

SSYN: Synonym.

Qualifiers:

B: Breeding status.

N: Non-breeding status.

?: Inexact.

Q: Questionable taxonomy.

APPENDIX V

User's Guide for GIS Attributes and Data Layers with Links to Plant Data Bases -



The National Park Service
Inventory and Monitoring



USER'S GUIDE

FOR

**Vascular Plant Inventory of Klondike Gold Rush National Historical Park
GIS Database**

Prepared for Southeast Alaska Area Network – National Park Service

By

**Julie A. Michaelson
Matthew L. Carlson
Robert Lipkin**

**Alaska Natural Heritage Program
Environment and Natural Resource Institute
University of Alaska Anchorage
707 A Street
Anchorage, AK 99501**

Prepared for

**Alaska National Park Service
Inventory and Monitoring Program
250 West 5th Avenue
Anchorage, AK 99501
March 2004**

TABLE OF CONTENTS

INTRODUCTION.....82

SOFTWARE REQUIREMENTS AND INSTALLATION.....82

CD-ROM CONTENTS.....83

USER GUIDELINES.....84

A. Data Sources.....84

B. Collection Site Spreadsheets and Field Photos.....84

C. ARCVIEW GIS Database: ‘KLGO.apr’.....84

 How to Open the Project.....84

 How to Open a View.....86

 How to Open an Attribute Table.....86

 How to Use PowerLinks.....86

D. Database Structure.....86

 Basemap Descriptions.....86

 Map Projection.....87

 Data Formats.....87

E. Database Contents and Development of GIS Data Layers.....87

F. Database Assemblage.....89

CONTACTS.....89

Table A1. Database Content for Klondike Gold Rush NHP Floristic Survey.....90

Table A2. Database Content for Klondike Gold Rush NHP Floristic Survey.....91

INTRODUCTION

In 2002, the Alaska Natural Heritage Program (AKNHP) entered into a Cooperative agreement with the National Park Service (NPS) Inventorying and Monitoring program to provide a floristic survey for Klondike Gold Rush National Historical Park (KLG0). As a result of this study, a Geographic Information System (GIS) based data-system was developed to store the results of this floristic survey and integrate these data with historical plant collections. This simple GIS application was developed by the Alaska Natural Heritage Program and allows users to view and query plant collections in a spatial context while providing all associated site data. The global positioning data collected at each 2002 and 2003 collection site serves as the basis for the spatial depiction of survey data. Spatial data for historical collections is limited to location coordinates obtained from the collection records and herbarium labels. The spatial accuracy and depiction of the historical records have a wider variation of accuracy than that of the 2002 and 2003 surveys which was collected in a more precise and standardized format. This GIS database is a self contained ArcView interface that allows easy access to botanical data and thus integrates floristic collections for KLG0. The associated project report provides background for the 2002-03 project and explains data collection methodology.

Database, information for the 2002 and 2003 survey has been separated into three formats:

- 1) **Collection spreadsheets** for each 2002 and 2003 collection sites. These contain site information, species collected, the habits in which they occurred, and associated species information.
- 2) **GIS Data Layers** that depict collection site locations and provide background data layers (images and shapefiles) for collection regions. Historical collections include those from the University of Fairbanks Herbarium and KLG0 collections by Claudia Rector.
- 3) **Digital field photos** that were taken at the collection sites during 2002-03 survey seasons and provide an overview of the specimen collection area.

The KLG0 database summarizes all botanical collections for the area and provides access to the products generated from the 2002-03 surveys. These surveys were aimed at collecting specimens that would document the occurrence of additional taxa for the park. These collections were made after a review of existing vouchered specimens and survey locations were chosen to expand data collection into areas not previously surveyed. It is our intent that this CD database application be made available to a wide audience and is intended to provide land resource managers with a data tool to better assess the floristic data of these areas that contribute to a better understanding of the botanical character of land units managed by the National Park Service.

This User's Guide describes the structure, usage, and navigation of the ArcView GIS database application developed for this floristic inventory. This document will accompany the database application as it is distributed to assist the users in understanding the technical and organizational aspects and component data layers of the CD application. An additional CD contains the raw data layers used to construct this application and has been delivered as a separate product to the Southeast Alaska Area Network of the Alaska National Park System.

SOFTWARE REQUIREMENTS AND INSTALLATION

Software required for successful use of this product includes ArcView 3.1 or higher, Powerlink Extension for ArcView, and Microsoft Excel. Collection spreadsheets are accessible using Microsoft Excel alone. However, no spatial data can be accessed without ArcView 3.1 or higher and Powerlink extension is needed to access the connection of excel files and field photos within

the ArcView application. The MrSid image support extension of ArcView must be activated to view the image files provided.

This CD-ROM was designed to operate from a C: drive of any computer with required software. It is recommended to increase viewing speed, that you copy the entire project (folder: "KLGO") to a C: drive. It is very important to **copy the entire folder with subfolders**. The contents of this CD are designed to operate correctly if loaded under a C:\sean directory structure. This will assure that the klgo.apr project will launch correctly. If another directory structure is used, connections will need to be re-established to fit to the new directory structure and allow the project to work.

** Please note: To operate properly, the file **MUST be placed directly on the selected drive**, not as a subfolder of any other directory.

CD-ROM CONTENTS

The Species of Concern database contains spatial and spreadsheet information regarding historical botanical collections, and 2002 and 2003 floristic studies for KLGO. The 2002 survey data has been organized into two regional survey areas that include, Chilkoot and White Pass Collection Regions. The database is completely accessible through the ArcView GIS application. Spreadsheet information may also be accessed directly using Microsoft Excel. Within the ArcView database ('klgo.apr') there are a total of 3 **Views** (pages): an individual View for each regional survey area or regional survey sub-unit, and a separate summary View for all existing plant collections. In each Regional View the user is able to link to spreadsheet information for a specific collection site and to a field photograph taken from each location. Each collection site spreadsheet contains a listing of each species collected at that location, habitat information, associated species at that site, a variety of location data as well as basic collection information (Collector name, date, number, etc.).

This CD-ROM contains a User's Guide for the Floristic Survey for Klondike Gold Rush National Historical Park database (klgo_user_guide.doc). Additionally, a separate CD containing all products including, field photos, site locations, and collection information has been provided for those users of the data that may not wish to access the data by way of the ArcView application.

USER GUIDELINES

A. Data Sources

The Collection Spreadsheets and GIS distribution layers reflect a compilation of existing collection summary provided by the University of Alaska Fairbanks Herbarium (ALA) obtained in 2001, a historical park collection obtained by Claudia Rector in 1994-95 from KLGO and recently acquired data from the Alaska Natural Heritage Program from the NPS sponsored floristic survey conducted in the summers of 2002 and 2003. Carolyn Parker, botanist with University of Alaska Herbarium, provided verification for specimens collected in the 2002-03 surveys.

B. Collection Site Spreadsheets and Field Photos

Spreadsheets have been provided both individually for each 2002 and 2003 collection sites, as well as a spreadsheet summary of all collections. These are accessible in Excel format and in the ArcView application. Historical collections from ALA and the Claudia Rector's park collection are presented as spreadsheets (*.xls) and spatially through ArcView application. No attempts were made to standardize attribute information between 2002 and historic data sets.

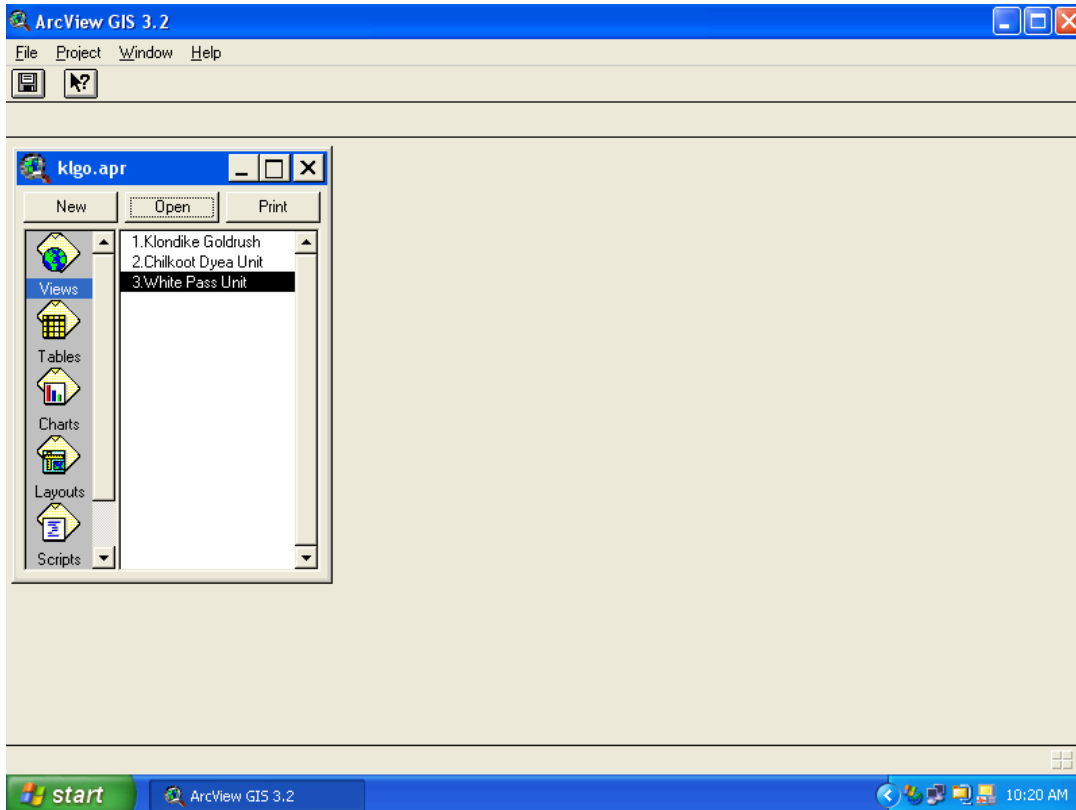
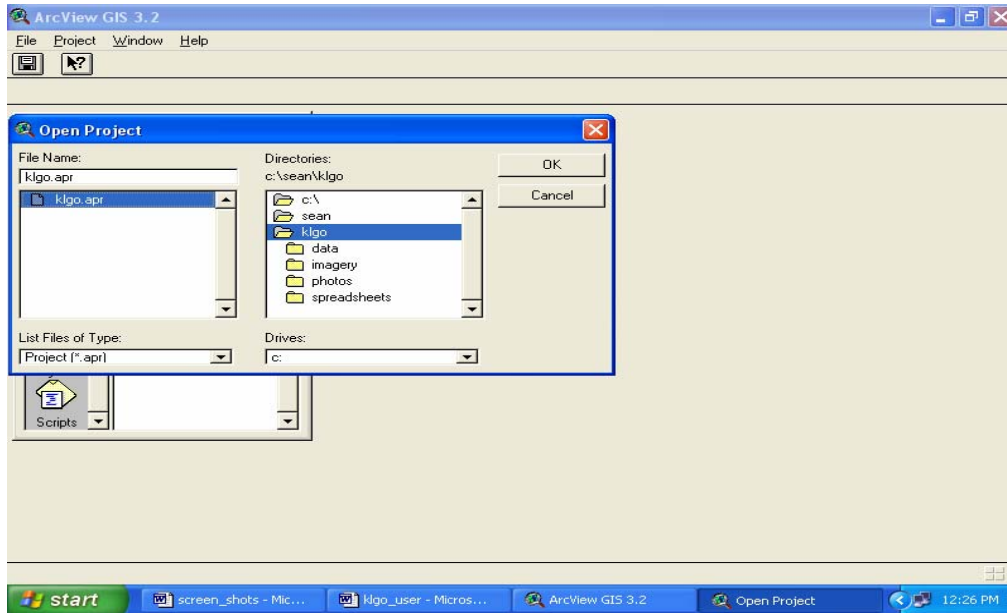
C. ARCVIEW GIS Database: 'KLGO.apr'

How to Open the Project

The database was designed for use by those with a basic level of ArcView proficiency. Very basic instructions for opening the program and use of the Powerlink feature are included in this User's Guide. In addition to the built-in help files in ArcView, more detailed information and support can be found on-line at <http://support.esri.com/>; to purchase an on-line course in using ArcView, visit ESRI's virtual campus at <http://campus.esri.com/>. Powerlink is an extension for Arcview provided online through <http://www.benchmarkgis.com>. This extension is provided for a free 15 day download at this site or purchase for \$69. This extension must be activated for the application to operate correctly. Before accessing the database, Powerlink extension must be loaded in the ArcView extension folder.

Load KLGO folder to your C:\SEAN drive and folder. This CD-ROM is designed to operate in C:\ disk drive, and the contents may also be copied to a hard-drive to increase viewing speed (see **SOFTWARE REQUIREMENTS AND INSTALLATION**). To open the project activate ArcView Files open project, choose c:\sean\KLGO and click on 'KLGO.apr' as shown in the example below.

KLONDIKE GOLD RUSH NATIONAL HISTORICAL PARK VASCULAR PLANT INVENTORY



Once the ArcView project opens, the first page should appear as in the example above. Note that the icon for “Views” is highlighted in the blue bar on the left side of the screen; this icon must be active to access views.

How to Open a View

To open the desired View, click on the name of View (it should appear highlighted in black, as in White Pass Unit above. Then click the “Open” button or simply double-click the desired View, and the View will appear on your screen. There are 3 separate views for this project (Klondike Goldrush, Chilkoot Dyea Unit, and White Pass Unit).

How to Open an Attribute Table

Each View consists of several data layers or Themes. To view the attribute table for a Theme, the Theme must first be made active. To activate a Theme, simply click once on the Theme name.

Once the Theme is active, click the “Table” icon on the toolbar at the top of the View, or use the “Theme” pull-down menu and select “Table”:

Refer to Section **E. Database Contents** for an explanation of data and field names presented in these tables.

How to Use Powerlinks

To access the spreadsheets and field photos via ArcView, use the regional area polygon shape file available for each regional area unit. Click on the desired Theme to activate it (Step 1), then click on the Hotlink button (black lightning bolt) (Step 2). With the Hotlink button active, click anywhere in the polygon (Step 3). This will automatically start Excel and bring up the appropriate spreadsheet for that collection point and activate the image viewer and display the field photos associated with that collection site. The zoom button may be needed to properly activate the powerlink for each site.

D. Database Structure

The project ‘KLGO.apr’ consists of 3 separate Views (pages). In addition to one View per regional survey site, there is also one View containing all plant collections from KLGO. Each species’ View contains the Themes (data layers) developed for that regional survey area. (see table #2 for a complete list of the 14 data layers or themes for each survey area).

Basemap Descriptions

The basemap for the database was the U.S. Geological Survey Digital Raster graphics (digital depiction of the USGS 1:63360 quad series). These .sid formatted files were converted into Alaska Albers projection and provided by the Alaska Regional Office GIS Division for use in the botanical survey. All shape files were georeferenced using the Alaska Albers projection (unit class = meters). All spatial point features representing collection sites were converted from their original projections for display on this layer. These DRG’s and the boundary of KLGO NP coverages provided by the NP GIS division was used to georeference original polygon and point features. Original decimal degree locations for each site are included in all spreadsheets. All collection site locations were buffered to create a polygon coverage from which links to associated spreadsheets and field photos could be established. One additional image of the Dyea area (*.sid) has been provided as a baselayer and was provided by the Alaska Regional Office of the National Park Service, GIS division.

Map Projection

All shape files were created and displayed using an Alaska Albers Equal Area map projection. Projection parameters include:

Projection: Albers
 Spheroid: Clarke 1866
 Central Meridian: -154 00 00
 Reference Latitude: 50 00 00
 Standard Parallel 1: 55 00 00
 Standard Parallel 2: 65 00 00
 False Easting: 0
 False Northing: 0

Data Formats

Shape files in the regional survey site folders are located under the folder labeled shapefiles and are in ArcView file format. Each shapefile has 3-5 associated files in an ArcView format (extensions include *.shp, *.dbf, *.shx, *.sbn, and *.sbx) that can be used by all versions of ArcView. There is a point feature file showing collection-site locations within each regional survey area, as well as a polygon coverage built around these points to allow linking to the other data components. Shape files are stored both as point features and polygon features. For each collection site there is a point or *_sites shape file showing the exact location of the location and a (*_poly) file that is a buffered coverage of these sites created to link to associated data within the ArcView application. Other base maps to include the park boundary is also stored as a polygon coverage in the ArcView folder under the associated regional survey unit. The hydrology and the trails base maps are also in shape file format and stored in the data sub folder.

Spreadsheet files in the Regional Survey folders are organized under Spreadsheets and are in MS Excel format (.xls extension).

Field Photo Image Files are located in field photo folder under each regional survey area. These files have a .jpg extension and are easily open using any image viewer and a variety of other software applications.

DRG Base maps are stored together in the c:\sean\klgo\imagery folder by way of the c:\sean\klgo\imagery pathway. The image files have a *.sid extension and are readable through the MrSid Image viewer extension of ArcView software.

E. Database Contents and Development of GIS Data Layers

A total of 14 data layers (Themes) were developed for this database. For a complete list of Themes included for each species, please see Table 2. There are base layers (USGS DRG 1:63360, 1:250000, images of photo mosaic for Dyea area, hydrology and trails) provided to assist in display of the botanical data. Database tables for historical collections (NPDC and C.Rector Collections and the 2002 and 2003 surveys were used to develop these themes.)

University of Alaska Fairbanks NPDC: (Klgobuf_ala.shp)

This theme was developed as an event theme using ArcView software. The original electronic data received from the University of Alaska herbarium (ALA) was imported into Excel and adjusted to fit the desired format. These data were transferred from Excel to ArcView via a comma delimited text file. All associated information is stored in the point feature attribute table and is accessible through the 'Identity' function of ArcView. No existing University of Alaska herbarium (ALA) collections occurred in the KLGGO. This view contains those collections known from the immediate area of the park in a boundary of 100 km from the boundary.

The core set of attributes used for this layer includes taxonomic name, location, habitat, and collection information. A complete list of attribute field definitions is available in Table 3.

Park Data Layer (Klgo_park_collections.shp)

This theme was developed as an event theme using Arcview software. This collection was made in 1994-95 by Claudia Rector KLGGO employee. The original electronic data received from NPS and was imported into Excel and adjusted to fit the desired format. These data were transferred from Excel to ArcView via a comma delimited text file and a point feature theme was produced. All associated survey information is stored in the attribute table and viewable through the 'Identity' function of ARCVIEW.

The core set of attributes used for this includes the following: specimen name, collectors, location, and elevation. A complete list of attribute field definitions is available in Table A3.

2002 Floristic Survey Data Layer: (Klgo2002_alb.shp)

This theme was developed as an event theme using Arcview software. The original electronic data was compiled from survey data collected by AKNHP staff and put in Excel spreadsheet format, after specimen verification by Carolyn Parker at the UAF herbarium.

On the summary spreadsheet, each collection site was assigned a unique number and name. This summary spreadsheet was edited and transferred from Excel to ArcView via a comma delimited text file. This summary table was used to create a point feature theme for the entire survey to include all collection sites. All data were edited and regional units and sub-units were divided to create themes for each. These layers were assembled with their base layers into separate views and a polygon shape file was created for each regional survey unit and sub-unit. The polygon shape file was used to store site identification and pathways necessary to establish links. The original summary spreadsheet was then divided into separated Excel sheets on each for a collection site and these were grouped according to regional survey units and sub-units.

The point feature file for each site contains attributes for the following general areas; location, taxonomic names, habitat, site characteristics, and collection notes. See Table A2 for a full listing of attributes and their definitions.

The polygon coverages for each regional survey unit and sub-unit were attributed with those features that allowed linkage to appropriate spreadsheets and field photos. See Table A2 for a full listing of these attributes.

2003 Floristic Survey Data Layer: (Klgo2003_alb.shp)

This theme was developed as an event theme using Arcview software. The original electronic data was compiled from survey data collected by AKNHP staff and put in Excel spreadsheet format, after specimen verification by Carolyn Parker the UAF herbarium.

On the summary spreadsheet, each collection site was assigned a unique number and name. This summary spreadsheet was edited and transferred from Excel to ArcView via a comma delimited text file. This summary table was used to create a point feature theme for the entire survey to include all collection sites. All data were edited and regional units and sub-units were divided to create themes for each. These layers were assembled with their base layers into separate views and a polygon shape file was created for each regional survey unit and sub-unit. The polygon shape file was used to store site identification and pathways necessary to establish links. The original summary spreadsheet was then divided into separated Excel sheets on each for a collection site and these were grouped according to regional survey units and sub-units.

The point feature file for each site contains attributes for the following general areas; location, taxonomic names, habitat, site characteristics, and collection notes. See Table 3 for a full listing of attributes and their definitions.

The polygon coverages for each regional survey unit and sub-unit were attributed with those features that allowed linkage to appropriate spreadsheets and field photos. See table 3 for a full listing of these attributes.

F. Database Assemblage

All theme layers as described above were then assembled and organized in ArcView for each of the two survey areas. Field photos were scanned, formatted as .jpg files, and named according to the associated collection site survey name and number. Collection points for the 2002 and 2003 were buffered and compiled as polygon coverages to which links to the field photos and collection spreadsheets could be established. This process created four new polygon coverages two each for the Chilkoot/Dyea and White Pass Survey views. The Powerlink ArcView extension was used to assemble pathways which were automatically inserted into the regional survey unit and sub-unit a polygon attribute tables. Field photos were connected to appropriate field collection sites. A final edit was made of all data and application function tested.

CONTACTS

Any comments that would help enhance the quality of this project or aid in the use of these data should be directed to:

Matthew L. Carlson
 Alaska Natural Heritage Program
 University of Alaska Anchorage
 707 "A" Street
 Anchorage, AK 99501
 (907) 257-2790
 afmlc2@uaa.alaska.edu

Julie Michaelson
 Alaska Natural Heritage Program
 University of Alaska Anchorage
 707 "A" Street
 Anchorage, AK 99501
 (907) 746-0959
 anjam1@uaa.alaska.edu

– or –

Table A1. Database Content for the Klondike Goldrush NP Floristic Survey.

View	Shape File Name	Feature Class
1. Klondike Gold Rush National Historical Park	Klgo2002_alb.shp	point
	Klgo2003_alb.shp	point
	Klgo_park_collections.shp	point
	Klgobuf_ala.shp	point
	Klogo_bd_alb.shp	polygon
	Klgo_hydro.shp	line
	Chilkoot_trail.shp	line
	Dyea.sid	image
2. Chilkoot Dyea Unit	Klgo_itm.sid	image
	Klgo_qq_.sid	image
	Klgo02_chilkoot.shp	polygon
	Klgo03_chilkoot.shp	polygon
	Klgo_hydro.shp	line
	Chilkoot_trail.shp	line
3. White Pass Unit	Klogo_bd_alb.shp	polygon
	Klgo_itm.sid	image
	Dyea.sid	image
	Klgo02_whitepass	polygon
	Klgo03_whitepass	polygon
	Klogo_bd_alb.shp	polygon
	Klgo_hydro.shp	line
	Chilkoot_trail.shp	line
Klgo_itm.sid	image	
	Klgo_qq_.sid	image

Table A2. Field Definitions for Theme Attribute Tables.

Theme: 2002 Floristic Survey Site Point feature themes and excel spreadsheets
 Klgo2002_alb.shp Klgo2003_alb.shp

Field Name	Description
Collection	Collection Number
Site_num	Site Number
Family	Taxonomic Family
Scientific	Scientific Name
Hulten_nme	Name in Flora of AK
Gen_locali	General Locality
Det_	Id determined by
Quad_1_25	1:250000 USGS Quadrangle name
Quad_1-63	1:63000 USGS Quadrangle name
Spec_local	Specific Location
Lat_dd	Latitude decimal degrees
Long_dd	Longitude decimal degrees
GPS_map	Location from Global Positioning system or map
Map_datum	Map Datum
Precision	Precision of Location
Epe_gps_er	GPS error
elevatione	Elevation
Topography	Topography
Aspect	Aspect
Slope_deg	Degree Slope
Aspect	Aspect
Habitat	Habitat Description
Phenology	Phenology
Plant_freq	Plant Frequency
Substrate	Substrate
Moisture	Moisture
Plant_desc	Plant Description
Spec_ecol	Specific Ecology
Plant_assoc	Plant Association
Elev_low	Low elevation
Elev_high	High Elevation
Collector	Collector
Collection	Collection Number
Coll_date	Collection Date
Herbarium	Herbarium holding collection
Ala_acc	Univ of AK Herbarium Accession number

Theme: 2003 Floristic Survey Site Point feature themes and excel spreadsheets

Klgo2003_alb.shp

Field Name	Description
Coll_num	Collection Number
Family	Taxonomic Family
Scientific	Scientific Name
Synonym	Synonym
Quad250	1:250000 USGS Quadrangle name
Quad63	1:63000 USGS Quadrangle name
Unit	Survey Unit
Locality	Description of locality
Lat_dd	Latitude decimal degrees
Long_dd	Longitude decimal degrees
Method	Locationobtained from
Datum	Map Datum
Elev_meter	Elevation in meters
Descriptio	Description
Slope	Slope
Aspect	Aspect
Veg_type	Vegetation type
Cover	Vegetation % Cover
Substrate	Substrate
Moisture	Moisture
Assoc_sp	Associated Species
Collector	Collector
Day	Day
Month	Month
Year	Year
Photo_id	Photo number
Link_no	Link Number
Site_no	Site Number

Theme: UAF Herbarium ALA Collection

Klgobuf_ala.shp

Field Name	Description
Famcode	ALA Family Code
Sci_name	Scientific Name
Genus	Genus Name
Species	Species Name

Infrank	Infra rank code
Infraspeci	Infra species Name
Lmu	Land Management Unit
Quad	USGS Quadrangle 1:63360
Locality	General locality
Lat_dd	Latitude in Decimal Degrees
Long_dd	Longitude in Decimal Degrees
Elev	Elevation and units of measure
Habitat	General habitat comments
Collector	Collectors Name
Col_date	Collection Date
Col_num	Collection Number
Ala_acc	ALA Accession Number
Citation	Source

Theme: KLGO Park Collection

Klgo_park_collections.shp

Field Name	Description
Cat_nmbr	Catalog Number
Class4	Family
Acc_numbr	Accession Number
Sciname	Scientific Name (Genus species)
Id_by	Identified By
Comname	Common Name
Coll_site	Collection Site
Coll_park	Park Collected in
UTM	UTM Coordinate
Elev	Elevation
Hab_depos	Habitat
Collector	Collector Name
Coll_numbr	Collection Number
Id_by	Name of Identifier
Cat_date	Catalog Date

Theme: Regional Survey_polygon coverage

Klgo02whitepass.shp, Klgo03whitepass.shp, Klgo02chilkoot.shp, Klgo03chilkoot.shp

Field Name	Description
Buff_dist	Buffer Distance
Site_no	Site Number
Lphoto	Pathway to field photo (s)
Lssheet	Pathway to field spreadsheet